MHC-881/D7/G88

SERVICE MANUAL

US Model
Canadian Model
MHC-881/D7

AEP Model
UK Model
MHC-881

E Model
Australian Model
Tourist Model
MHC-G88

- MHC-881/D7/G88 are composed of following models.
  As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENTS MODEL NANE FOR THIS SYSTEM

SET	CD PLAYER/TUNER/AMP	FRONT SPEAKER	SURROUND SPEAKER
MHC-881	HCD-H881	SS-H991	SS-SR10P (Canadian model) SS-SR991 (EXCEPT Canadian model)
MHC-G88			
MHC-D7	HCD-H881D		

SPECIFICATIONS

Supplied accessories
AM loop antenna (1)
Remote Commander
RM-SC100F (1)
(HCD-H881 : US, Canadian model)
RM-SD50 (1)
(EXCEPT HCD-H881 : US, Canadian model)
Sony SUM-3 (NS) batteries (2)
FM lead antenna (1)
Speaker cords (4)

General
Power requirements
US, Canadian, Mexican model : 120V AC, 60Hz
AEP, German, Italian, East European,
CIS model : 220 - 230V AC, 50/60Hz
UK, Australian model : 240V AC, 50/60Hz
E, Saudi Arabia, Singapore, Argentine, Hong Kong,
Indonesia, Taiwan, Tourist model : 110- 120/220- 240V AC, 50/60Hz
Malaysia, Thailand model : 220 - 240V AC, 50/60Hz

Power consumption
US model : 275W
Canadian model : 300VA
AEP, German, Italian,
CIS, UK, East European model : 145W
Other model : 190W
Dimensions
Approx. 280 × 325 × 360mm
($11\frac{1}{8} \times 12\frac{7}{8} \times 14\frac{1}{4}$ in) (w/h/d)
Mass
US, Canadian model
Approx. 10kg (22 lb)
AEP, UK, German, Italian, East European, CIS model
Approx. 9.5kg (20 lb 15 oz)
Other model
Approx. 9.0kg (19 lb 14 oz)
incl. projecting parts and controls

Design and specifications are subject to change without notice.

MINI Hi-Fi COMPONENT SYSTEM

SONY®

PARTS LIST

NOTE :
- Items marked " ∗ "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• Abbreviation

AR : Argentine
AUS : Australian
CND : Canadian
EA : Saudi Arabia
EE : East European
G : German
HK : Hong Kong
IA : Indonesia
IT : Italian
JEW : Tourist
MX : Mexican
MY : Malaysia
SP : Singapore
TH : Thailand
TW : Taiwan

ACCESSORIES & PACKING MATERIALS
****

	Part No.	Description	Remark
	1-473-533-11	REMOTE COMMANDER(RM-SC100F) (MHC-881:US, CND)	
	1-501-374-11	ANTENNA, LOOP	
	1-501-594-11	ANTENNA(FM)(EXCEPT US, CND)	
	1-501-659-11	ANTENNA(FM)(US, CND)	
	1-769-317-11	CORD, SPEAKER (SS-H991)	
	1-769-433-11	CORD, SPEAKER (SS-SR991)	
	3-810-535-11	MANUAL, INSTRUCTION (TH)(THAI)	
	3-810-669-11	MANUAL, INSTRUCTION (UK)(ENGLISH)	
	3-810-669-21	MANUAL, INSTRUCTION (AEP) (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
	3-810-669-31	MANUAL, INSTRUCTION (G)(GERMAN)	
	3-810-669-41	MANUAL, INSTRUCTION (AEP, IT) (GERMAN, DUTCH, ITALIAN)	
	3-810-669-51	MANUAL, INSTRUCTION (EE, CIS) (ENGLISH, PORTUGUESE)	
	3-810-669-61	MANUAL, INSTRUCTION (AEP) (GERMAN, FRENCH, ITALIAN, SWEDISH)	
	3-810-938-71	MANUAL, INSTRUCTION (MHC-D7:CND) (FRENCH)	
	3-810-963-11	MANUAL, INSTRUCTION (MHC-881:US/CND) (ENGLISH)	
	3-810-963-21	MANUAL, INSTRUCTION (MHC-881:CND) (FRENCH)	
	3-810-963-31	MANUAL, INSTRUCTION (E, AU, AR, MX, EA, MY, SP, HK, TW, IA) (ENGLISH, FRENCH, SPANISH, CHINESE)	
	3-810-963-41	MANUAL, INSTRUCTION (E3, EA)(ARABIC)	
	3-810-963-51	MANUAL, INSTRUCTION (JEW) (ENGLISH, PORTUGUESE, RUSSIAN)	
	3-810-963-61	MANUAL, INSTRUCTION (MHC-D7:US)(ENGLISH)	
	3-848-514-01	BAG, PROTECTION(SS-SR991)	
∗	4-976-969-01	CUSHION(SS-SR10P)	
	4-979-371-01	COVER, BATTERY (FOR RM-SD50) (EXCEPT MHC-881:US, CND)	
∗	4-980-147-01	INDIVIDUAL CARTON(TH)	
∗	4-980-428-01	CUSHION(FRONT)(HCD)	
∗	4-980-429-01	CUSHION(REAR)(HCD)	
∗	4-980-430-01	INDIVIDUAL CARTON(MHC-881:CND)	
∗	4-980-431-01	INDIVIDUAL CARTON (MHC-881:EXCEPT US, CND)	
∗	4-980-432-01	INDIVIDUAL CARTON (MHC-G88:EXCEPT EA, JEW, AUS)	
∗	4-980-433-01	INDIVIDUAL CARTON(EA, JEW)	
∗	4-980-434-01	INDIVIDUAL CARTON(AUS)	
∗	4-980-957-01	CUSHION (SS-SR991)	
∗	4-981-327-01	CUSHION (SS-H991)	
	4-981-643-01	COVER, BATTERY(FOR RM-SC100F) (MHC-881:US, CND)	
∗	4-982-001-01	INDIVIDUAL CARTON(MHC-D7)	
∗	4-982-366-01	INDIVIDUAL CARTON(MHC-D7:CND)	
∗	4-983-564-01	INDIVIDUAL CARTON(MHC-881:US)	
∗	4-983-565-01	INDIVIDUAL CARTON(MHC-D7:US)	
	8-917-537-90	REMOTE COMMANDER(RM-SD50) (EXCEPT MHC-881:US, CND)	

Sony Corporation
Home A&V Products Company

English
96F0212-1
Printed in Japan
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Published by Quality Engineering Dept.
(Shibaura)

HCD-H881/H881D

SERVICE MANUAL

US Model
Canadian Model
HCD-H881/H881D

AEP Model
UK Model
E Model
Australian Model
Tourist Model
HCD-H881

- HCD-H881/H881D is the tuner, deck, CD and amplifier section in MHC-811, MHC-D7 and MHC-G88.

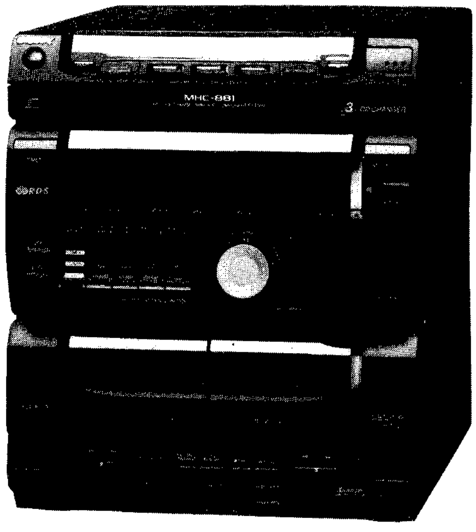

Photo : HCD-H881

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ꟿ are trademarks of Dolby Laboratories Licensing Corporation.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM38-5BD19
	Base Unit Name	BU-5BD19
Tape deck Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	TCM-220WR2E

SPECIFICATIONS

for the U.S. model
AUDIO POWER SPECIFICATIONS
POWER OUTPUT AND TOTAL HARMONIC DISTORTION :
with 8 ohm loads, both channels driven, from 40 - 20kHz ; rated 100 watts per channel minimum RMS power, with no more then 0.9 % total harmonic distortion from 250 milliwatts to rated output.

CD player section

System　Compact disc and digital audio system
Laser　Semiconductor laser
Wavelength　780 - 790 nm
Frequency response
　2 Hz - 20 kHz (±0.5 dB)
Signal-to-noise ratio
　More than 90 dB
Dynamic range More than 90 dB
CD DIGITAL OUT OPTICAL
(Square optical connector jack, rear panel)
　Wavelength　600 nm
　Output Level　-18 dBm

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range　US, Canadian model :
　87.5 - 108MHz (100kHz step)
EXCEPT US, Canadian, East European model :
　87.5 - 108MHz (50kHz step)
East European model :
　FM 1 : 65 - 74MHz (10kHz step)
　FM 2 : 87.5 - 108MHz (50kHz step)

Antenna　FM lead antenna
Antenna terminals
　75 ohm unbalanced
Intermediate frequency
　10.7 MHz

AM tuner section

Tuning range　US, Canadian model :
　531 - 1,710kHz (with the tuning interval set at 9kHz)
　530 - 1,710kHz (with the tuning interval set at 10kHz)
AEP, UK, East European, German model :
　MW : 531 - 1,602kHz (with the tuning interval set at 9kHz step)
　LW : 153 - 279kHz
Italian model :
　MW : 522 - 1,611kHz (with the tuning interval set at 9kHz step)
　LW : 153 - 279kHz
E, Saudi Arabia, Argentine, Hong Kong, Malaysia, Taiwan, Singapore, Australian, Tourist, Indonesia, CIS, Mexican, Thailand model :
531 - 1,602 kHz (with the tuning interval set at 9 kHz)
530 - 1,710 kHz (with the tuning interval set at 10 kHz)
　SW : 5.95 - 17.90MHz
(E3, Saudi Arabia, Hong Kong, Tourist, Malaysia, Singapore, Indonesia, CIS model)

Antenna　AM loop antenna,
　External antenna terminals
Intermediate frequency
　450 kHz

Amplifier section

AEP, UK, German, Italian, East European, CIS model :
　DIN　50W+50W (8 ohm, 1kHz, 0.8% THD)
　RMS　60W+60W (8 ohm, 1kHz, 10% THD)
　MUSIC power output
　　105W+105W (8 ohm, 1kHz, 10% THD)
US, Canadian model :
　FTC　100W+100W (8 ohm, 40 - 20kHz, 0.9% THD)
　Continuous RMS power output
　　120W+120W (8 ohm, 1kHz, 5% THD)
Other model
　Peak music power output
　　1200 W
　Continuous RMS power output
　　80 W + 80 W (8 ohm at 1 kHz, 5 % THD)
Inputs
　VIDEO/MD IN (phono jacks):
　　voltage 450 mV,
　　impedance 47 kilohm
　MIX MIC (phone jacks):
　　sensitivity 1 mV,
　　impedance 10 kilohm

— Continued on page 2 —

MICROFILM

MINI Hi-Fi COMPONENT SYSTEM

SONY®

Outputs
VIDEO/MD OUT (phono jacks):
voltage 250 mV
impedance 1 kilohm
PHONES (stereo phone jack):
accepts headphones of
8 ohm or more
SPEAKER:
accepts impedance of 8 to
16 ohm
SURROUND/SUB SPEAKER:
accepts impedance of
16 ohm
SUPER WOOFER:
Voltage 1 V, impedance
1 kilohms

Tape player section

Recording system
4-track 2-channel stereo
Frequency response
(DOLBY NR OFF)
40 - 13,000 Hz (±3 dB),
using Sony TYPE I cassette
40 - 14,000 Hz (±3 dB),
using Sony TYPE II cassette
Wow and flutter
±0.15% W. Peak (IEC)
0.1% W. RMS (NAB)
±0.2% W. Peak (DIN)

Supplied accessories

AM loop antenna (1)
Remote RM-SC100F (1) (HCD-H881 : US, Canadian model)
Remote RM-SD50 (1) (EXCEPT HCD-H881 : US, Canadian model)
Sony SUM-3 (NS) batteries (2)
FM lead antenna (1)
Speaker cords (4)

General

Power requirements

Destination	Power requirements	Power consumption
US model	120V AC, 60Hz	275W
Canadian model		300VA
Mexican model		190W
Malaysia, Thailand model	220 – 240V AC, 50/60Hz	190W
AEP, German, Italian, CIS, East European model	220 – 230V AC, 50/60Hz	145W
UK model	240V AC, 50/60Hz	145W
Australian model		190W
E, Saudi Arabia, Hong Kong, Tourist, Singapore, Argentine, Indonesia, Taiwan model	110 – 120V/220V – 240V AC, 50/60Hz Adjustable with the Voltage Selector	190W

Dimensions Approx. 280 × 325 ×
360 mm
(11 1/8 × 12 7/8 × 14 1/4 in)
(w/h/d)
incl. projecting parts and
controls
Mass US, Canadian model
Approx. 10kg (22 lb)
AEP, UK, German, Italian, East European, CIS model
Approx. 9.5kg (20 lb 15 oz)
Other model
Approx. 9.0kg (19 lb 14 oz)

Design and specifications are subject to change without notice.

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Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION ;	INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM
ADVARSEL ;	USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO! ;	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE.
VARNING ;	LASERSTRÅLING NÄR DENNA DEL ÄR OPPNÅD OCH SPÄRREN ÄR URKOPPLAD
ADVARSEL ;	USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY-RELATED COMPONENT WARNING!!

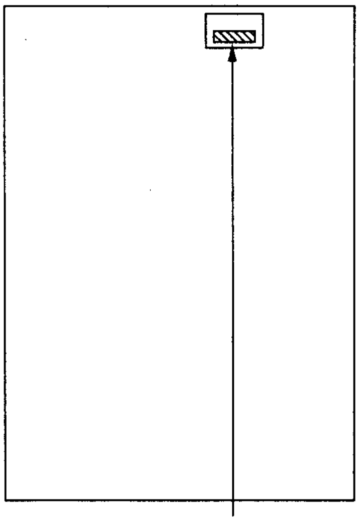
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MODEL IDENTIFICATION

– BACK PANEL –



made in Malaysia

4-978-749-0☐ : US model (H881)
4-978-749-1☐ : Canadian model (H881)
4-979-269-0☐ : US model (H881D)
4-979-269-1☐ : Canadian model (H881D)
4-978-749-2☐ : AEP model
4-978-749-3☐ : UK model
4-978-749-4☐ : German model
4-978-749-5☐ : Italian model
4-978-749-6☐ : East European model
4-978-749-7☐ : CIS model
4-979-268-0☐ : E model
4-979-268-1☐ : Saudi Arabia, Taiwan model
4-979-268-2☐ : Australian model
4-978-268-3☐ : Mexican model
4-979-268-4☐ : Malaysia model
4-979-268-5☐ : Singapore model
4-979-268-6☐ : Argentine model
4-979-268-7☐ : Hong Kong model
4-979-268-8☐ : Tourist model

made in Indonesia

4-979-268-9☐ : Thailand, Saudi Arabia model

made in Thailand

4-979-277-0☐ : US model (H881)
4-979-277-1☐ : Canadian model (H881)
4-979-279-0☐ : US model (H881D)
4-979-279-1☐ : Canadian model (H881D)
4-979-277-2☐ : AEP model
4-979-277-3☐ : UK model
4-979-277-4☐ : German model
4-979-277-5☐ : Italian model
4-979-277-6☐ : East European model
4-979-277-7☐ : CIS model
4-979-278-0☐ : E, Indonesia model
4-979-278-2☐ : Australian model
4-979-278-3☐ : Mexican model
4-979-278-5☐ : Singapore model
4-979-278-6☐ : Argentine model
4-979-278-7☐ Hong Kong model

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

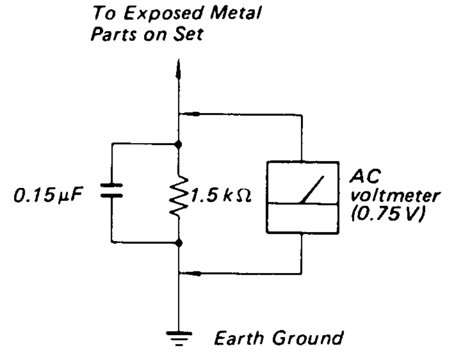


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

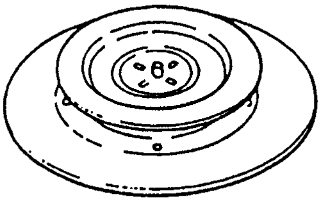
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30cm away form the objective lens.

CHUCK PLATE JIG ON REPAIRING

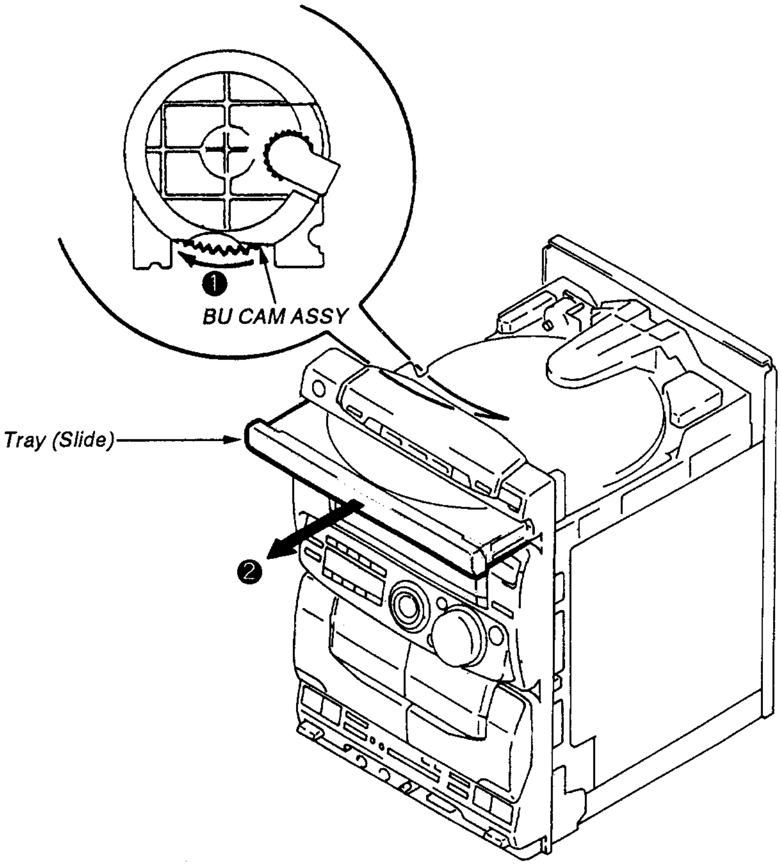
On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig : X-4918-255-1



- **Tray (Slide) getting out procedure on the power supply is OFF**

  Rotate the BU CAM assembly in the direction of the arrow and pull out the slide.



This section is extracted from instruction manual.

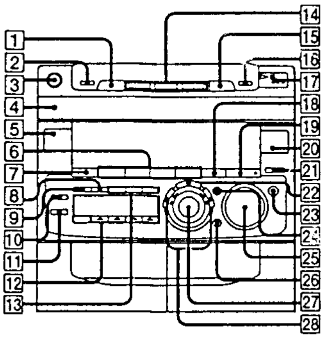
SECTION 2
GENERAL

Index to Parts and Controls

Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

Front Panel

Amplifier/Tuner section



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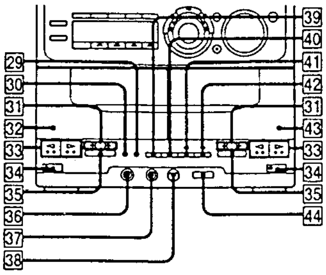

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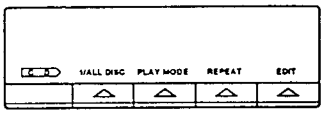
1 POWER switch
2 LOOP button
3 DISC SKIP button
4 Disc tray
5 TIMER button
6 MENU 1 - 4 button
7 DISPLAY/DEMO button
8 CLIP ERASE button
9 CLIP PLAY button
10 DSP button
11 DIGITAL ECHO button
12 MULTI FUNCTION CONTROL button
13 CLIP A - C button
14 DISC 1 - 3 button
15 ≙ OPEN/CLOSE EX-CHANGE button
16 ▷❚❚ (play /pause) button*
17 ■ (stop) button
18 P FILE button
19 TUNER/BAND button*
20 EFFECT ON/OFF button*
21 FUNCTION button
22 ENTER/NEXT button
23 DBFB button
24 GROOVE button
25 VOLUME knob
26 SONIC FORMATION button
27 JOG dial
28 FREQUENCY +/- buttons
29 Deck A
30 DIRECTION button
31 DOLBY NR button
32 ◁◁/▷▷ (fast forward/rewind) button
33 ▷❚❚ (play) button*
34 ■ (stop) button
35 ≙ EJECT button
36 PHONES jack
37 MIX MIC jack
38 Deck B
39 HIGH SPEED DUBBING button
40 CD SYNCHRO button
41 ● REC button
42 ❚❚ PAUSE button
43 KARAOKE PON/MPX button
44 MIC LEVEL knob

MULTI FUNCTION CONTROL buttons

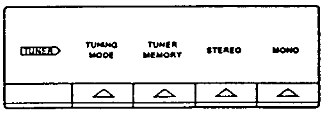
The button you can operate the CD player, tuner and the tape player light up.

CD



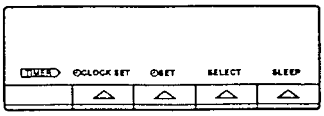
CD
1/ALL DISC
PLAY MODE
REPEAT
EDIT

TUNER



TUNER
TUNING MODE
TUNER MEMORY
STEREO
MONO

DECK

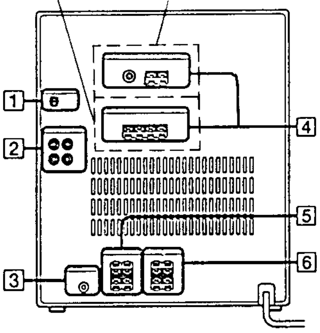


TIMER
⊘CLOCK SET
⊘SET
SELECT
SLEEP

Rear panel

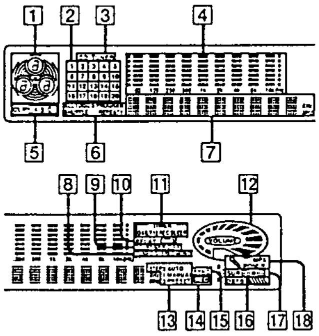
EXCEPT E3, EA, MY, SP, TW, HK, JE, IA model

E3, EA, MY, SP, TW, HK, JE, IA model



1 CD DIGITAL OPTICAL OUT jack
2 VIDEO/MD in/out jacks
3 a super woofer jack (MHC-D7 only)
4 ANTENNA terminals
5 SURROUND SPEAKER L/R jacks
6 SPEAKER jacks

Display Window



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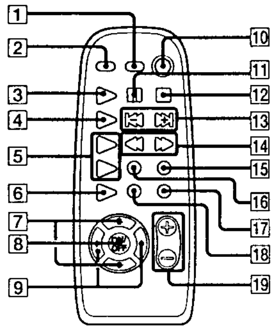
18

1 Disc tray indicator
2 Music calendar
3 CD/TUNER indicator
4 Graphic Equalizer indicator
5 CLIP indicators
6 CD playback indicators
7 Multi display
8 Tuning indicator
9 DOLBY NR indicator
10 Timer indicators
11 Directon mode indicators
12 VOLUME indicators
13 Tuner indicators
14 SYNC REC indicator
15 DBFB indicator
16 SUR 1/2 indicators
17 Karaoke PON/MPX indicators

Remote

EXCEPT HCD-H881 : US, Canadian model



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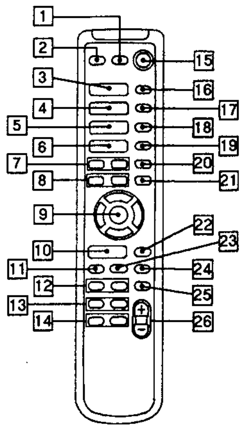
19

1 SLEEP button
2 LOOP button
3 CD ▷ button
4 TUNER/BAND button
5 DECK A ▷ /DECK B ▷ button
6 FUNCTION button
7 ⊘ / ⊘ button
8 MUSIC MENU ON/OFF button
9 ◁ / ▷ button
10 POWER switch
11 ❚❚ (pause) button
12 □ (stop) button
13 ⏮ / ⏭ AMS* button
14 ◁◁ / ▷▷ (rewind/fast forward) button
15 EDIT button
16 CHECK button
17 DISC SKIP button
18 CLEAR button
19 VOL (+/–) button

* AMS=Auto Music Sensor

Remote

HCD-H881 : US, Canadian model



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25
26

1 FUNCTION button
2 SLEEP button
3 CD ▷ (play) button
4 TUNER/BAND button
5 ◁▷ (Deck A) button
6 ◁▷ (Deck B) button
7 ⏮/⏭ (TUNING – / +) button
8 ◀◀/▶▶ (deck) button
9 MUSIC MENU SELECT ON/OFF button
10 ▷ (play) button
11 ❚❚ button
12 ⏮/⏭ button
13 ◀◀/▶▶ button
14 DISC SKIP – / + button
(10–14: 100CD)
15 SYSTEM POWER switch
16 LOOP button
17 CHECK button
18 CLEAR button
19 D. SKIP button
20 ■ (stop) button
21 ❚❚ (pause) button
22 REPEAT button
23 ■ (stop) button
24 CHECK button
25 CLEAR button
(22–25: 100CD)
26 VOLUME (+ / –) button

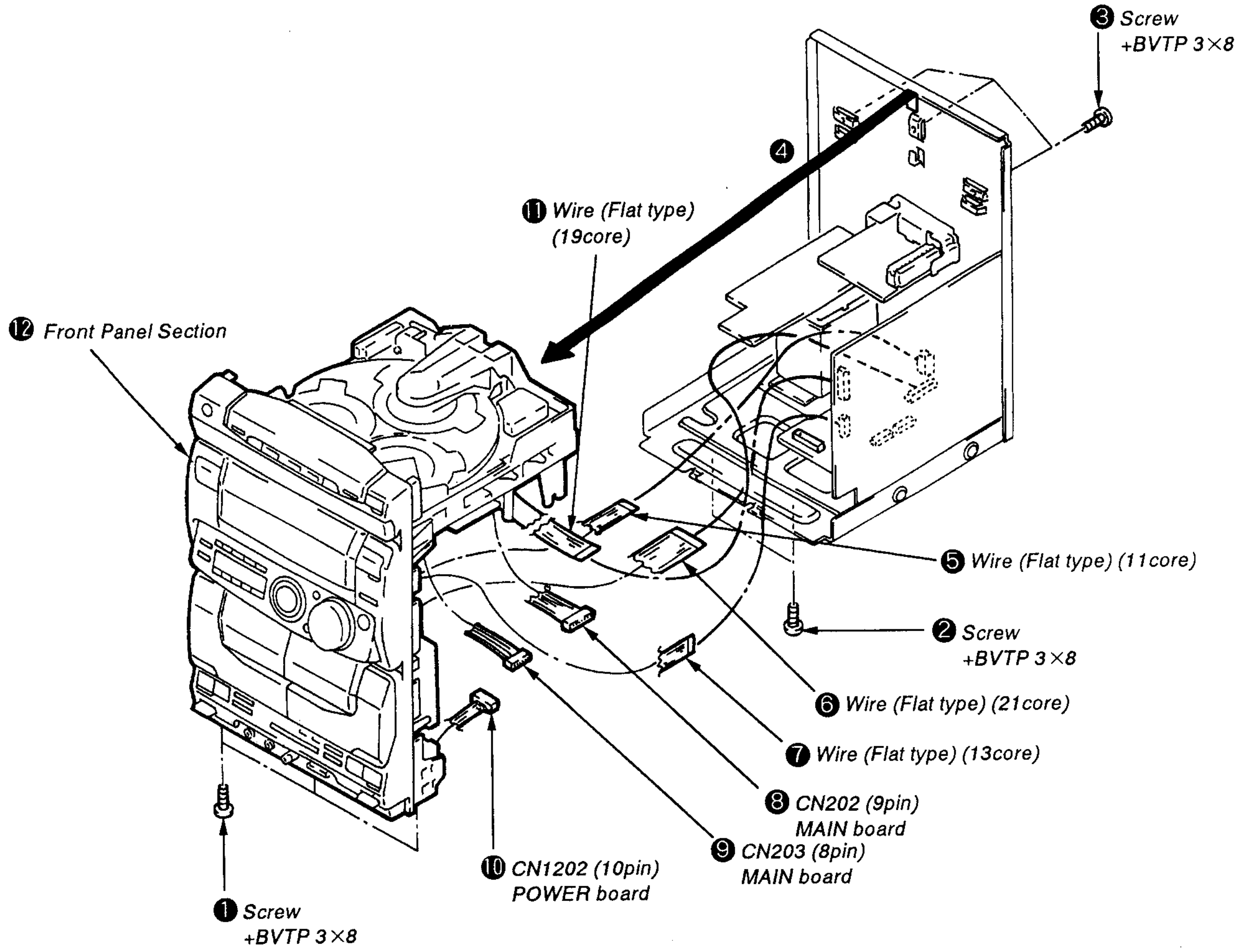
- Abbreviation

E3	: Tuner sections SW BAND exist.
EA	: Saudi Arabia
MY	: Malaysia
SP	: Singapore
TH	: Thailand
HK	: Hong Kong
JE	: Tourist
IA	: Indonesia
TW	: Taiwan

SECTION 3
DISASSEMBLY

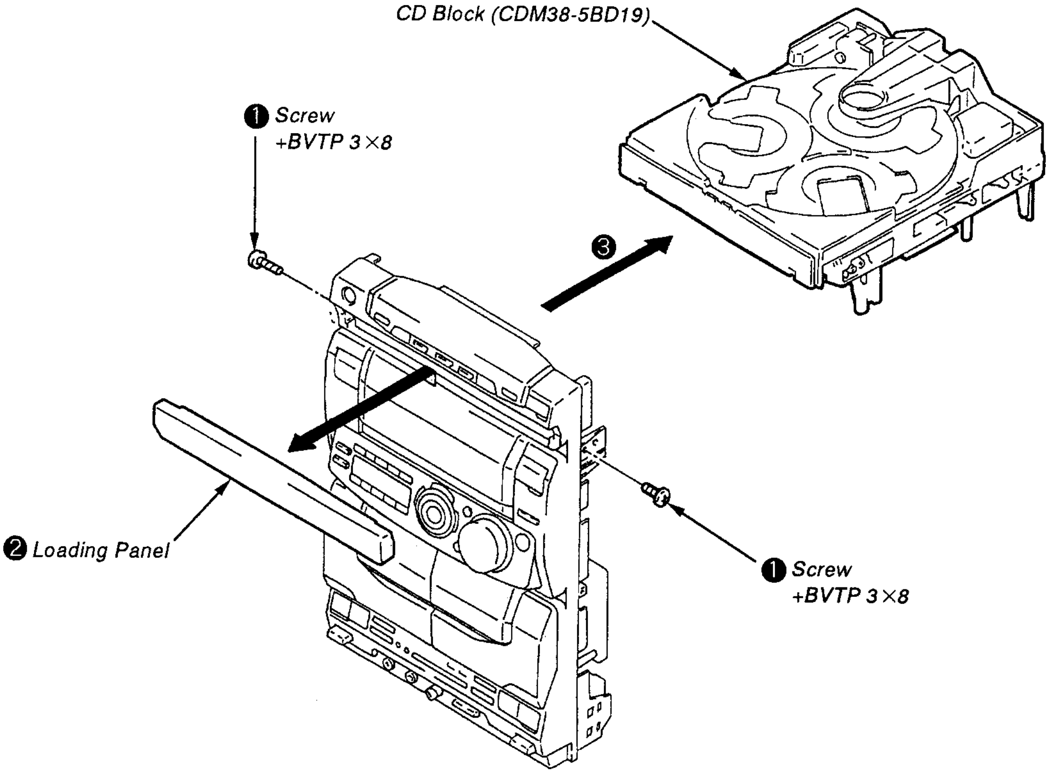
Note : Follow the disassembly procedure in the numerical order given.

3-1. FRONT PANEL REMOVAL

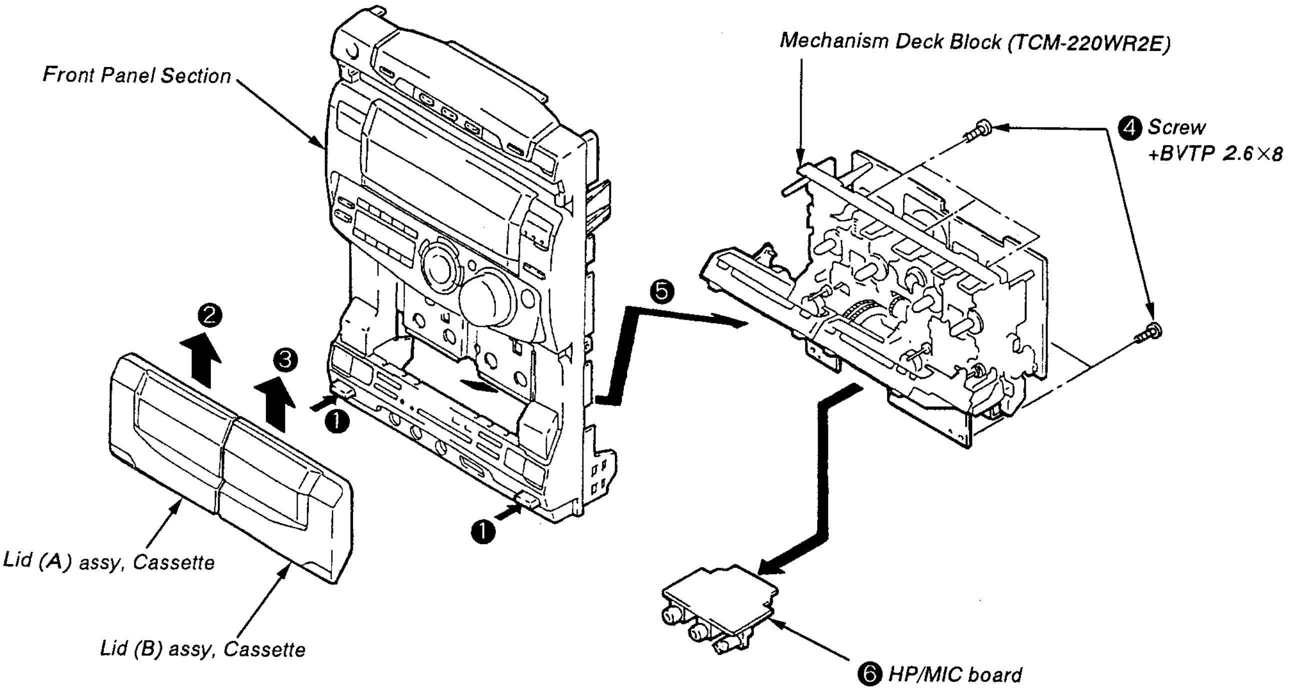


❸ Screw
+BVTP 3×8
❹
⓫ Wire (Flat type)
(19core)
⓬ Front Panel Section
❺ Wire (Flat type) (11core)
❷ Screw
+BVTP 3×8
❻ Wire (Flat type) (21core)
❼ Wire (Flat type) (13core)
❽ CN202 (9pin)
MAIN board
❾ CN203 (8pin)
MAIN board
❿ CN1202 (10pin)
POWER board
❶ Screw
+BVTP 3×8

3-2. CD BLOCK REMOVAL


CD Block (CDM38-5BD19)
❶ Screw
+BVTP 3×8
❸
❷ Loading Panel
❶ Screw
+BVTP 3×8

3-3. LID (A)/(B) ASSY, CASSETTE, MECHANISM DECK BLOCK AND HP/MIC BOARD REMOVAL


Front Panel Section
Mechanism Deck Block (TCM-220WR2E)
❹ Screw
+BVTP 2.6×8
❺
❷
❸
❶
❶
Lid (A) assy, Cassette
Lid (B) assy, Cassette
❻ HP/MIC board

SECTION 4

ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

- **Torque Measurement**

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	36 to 61g•cm (0.50 – 0.84 oz•inch)
Forward Back Tension	CQ-102C	2 to 6g•cm (0.028 – 0.083 oz•inch)
Reverse	CQ-102RC	36 to 61g•cm (0.50 – 0.84 oz•inch)
Reverse Back Tension	CQ-102RC	2 to 6g•cm (0.028 – 0.083 oz•inch)
FF, REW	CQ-201B	61 to 143g•cm (0.85 – 1.99 oz•inch)

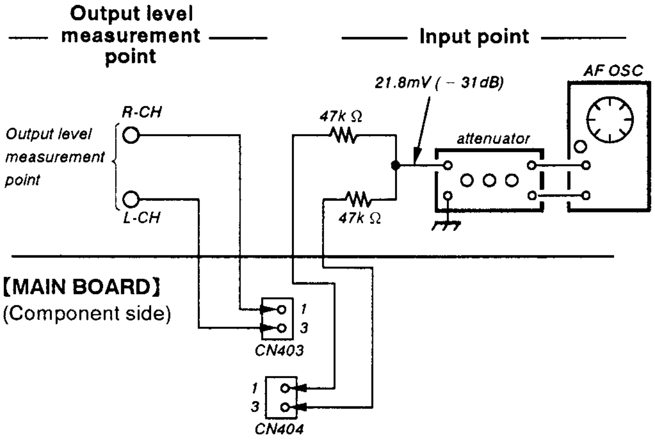
- **Tape Tension Measurement**

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 100g (3.53 oz)
Reverse	CQ-403R	more than 100g (3.53 oz)

4-2. ELECTRICAL ADJUSTMENTS

DECK SECTION

1. The adjustment should be performed in the publication. (Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
   - Switch position
     DOLBY NR switch : OFF
     FUNCTION button : OFF
     EFECT switch : OFF
     DBFB switch : OFF
3. Deck section electrical adjustments are made in test mode by pressing DISPLAY/DEMO, TUNER/BAND, MENU1 at the same time.
4. Input point and output level measurement point.


Output level measurement point
Input point
AF OSC
21.8mV (– 31dB)
R-CH
47k Ω
Output level measurement point
attenuator
L-CH
47k Ω
[MAIN BOARD]
(Component side)
1
3
CN403
1
3
CN404

- **Test Tape**

Tape	Contents	Use
P-4-A100	10kHz, – 10dB	Head Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

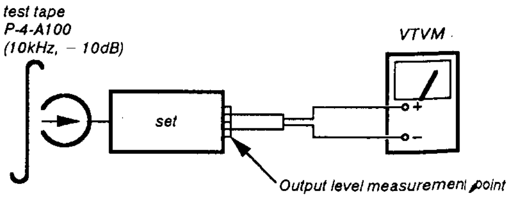
0 dB=0.775V

Record/Playback Head Azimuth Adjustment

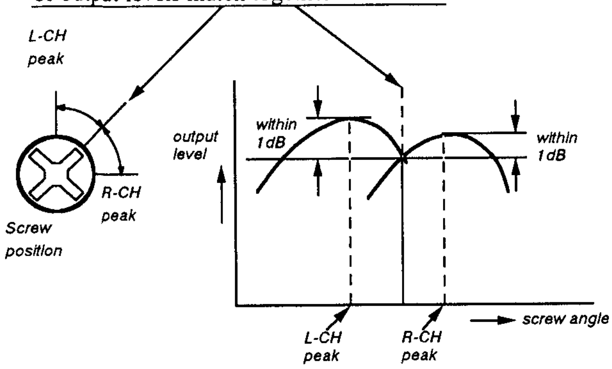
DECK A **DECD B**

Procedure :

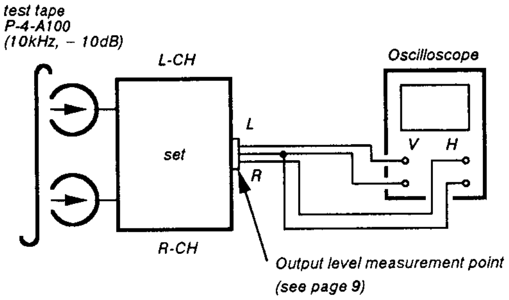
1. Forward Playback mode
   Reverse Playback mode

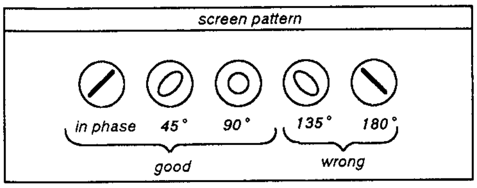

test tape
P-4-A100
(10kHz, – 10dB)
VTVM
set
Output level measurement point

2. Turn the adjustment screw for the maximum output levels.If these levels do not match,turn the adjustment screw until both of output levels match together within 1dB.


L-CH
peak
R-CH
peak
Screw
position
output
level
within
1dB
within
1dB
screw angle
L-CH
peak
R-CH
peak

3. Playback Mode

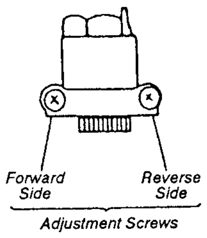

test tape
P-4-A100
(10kHz, – 10dB)
L-CH
Oscilloscope
set
L
R
V
H
R-CH
Output level measurement point
(see page 9)


screen pattern
in phase
45°
90°
135°
180°
good
wrong

4. Change the review playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location :

– record/playback head (Deck A and B) –

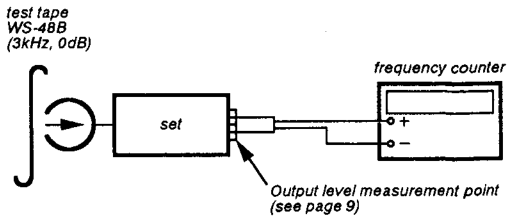

Forward
Side
Reverse
Side
Adjustment Screws

Tape Speed Adjustment **DECK A** **DECK B**

Procedure :

- Perform high speed adjustment before normal speed adjustment.

  Mode : Playback


test tape
WS-48B
(3kHz, 0dB)
frequency counter
set
+
–
Output level measurement point
(see page 9)

Speed	Deck	Adjustment	Frequency counter
* High	A	RV652	5,970 to 6,030Hz
	B	RV652	
Normal	A	RV651	2,940 to 3,090Hz
	B	RV651	

* Continue to press HIGH SPEED DUBBING switch (S545) in playback mode : High speed playback.

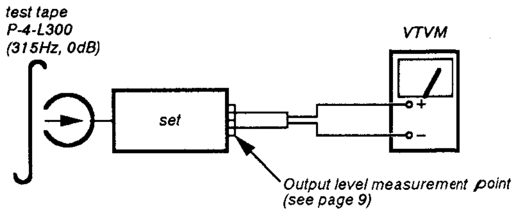
Frequency difference between the begining and the end of the tape should be within ± 3%.
Frequency difference between deck A and deck B the biginning of the tape should be within 1.5%.

Adjustment Location : AUDIO board.
(see page 11)

Playback Level Adjustment **DECK A** **DECK B**

Procedure :

– FWD Playback Mode –


test tape
P-4-L300
(315Hz, 0dB)
VTVM
set
+
–
Output level measurement point
(see page 9)

Deck A is RV311(L-CH) and RV411(R-CH), deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level :

LINE OUT level : – 7.5 ± 0.5dB (0.31 to 0.35V)
Level Difference between Channels : within 0.5dB

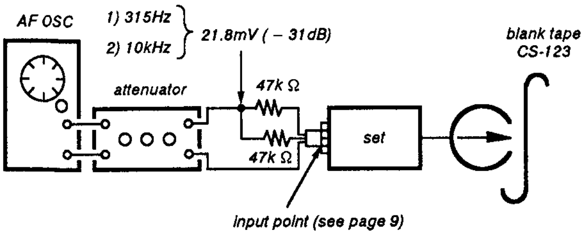
Confirm the OUTPUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : AUDIO board.
(see page 11)

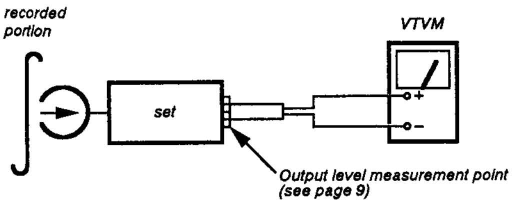
Record Bias Adjustment **DECK B**

Procedure :

1. Record mode


AF OSC
1) 315Hz
2) 10kHz
21.8mV (− 31dB)
blank tape
CS-123
attenuator
47k Ω
47k Ω
set
input point (see page 9)

2. Playback mode


recorded portion
VTVM
set
Output level measurement point
(see page 9)

3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) to repeat step 1 and 4.

Adjustment level : Playback output of 315Hz to playback output of 10kHz : ± 0.5dB (− 1.3 to 1.3mV).

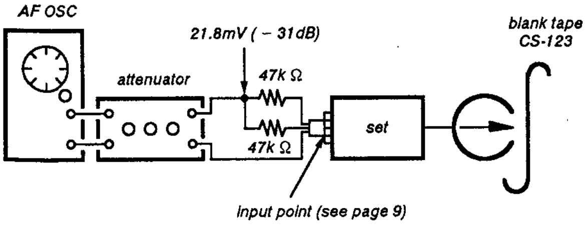
Adjustment Location : AUDIO board.

Record Level Adjustment **DECK B**

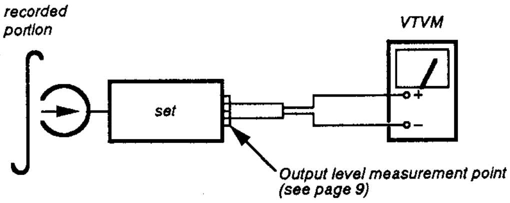
FUNCTION button : CD

Procedure :

1. Record mode


AF OSC
21.8mV (− 31dB)
blank tape
CS-123
attenuator
47k Ω
47k Ω
set
input point (see page 9)

2. Playback mode


recorded portion
VTVM
set
Output level measurement point
(see page 9)

3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) to repeat step 1 and 4.

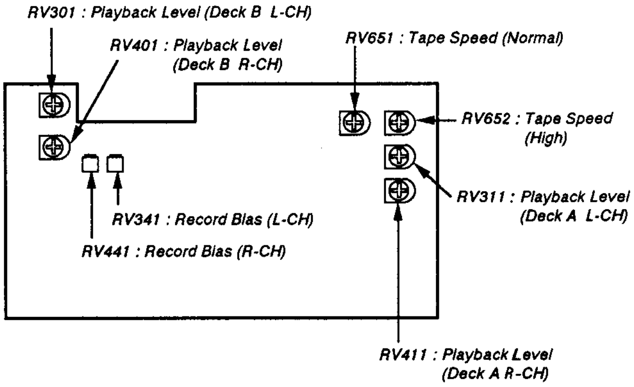
Adjustment Level :

OUT PUT level : − 26dB ± 0.5dB (36.7 to 41.1mV)

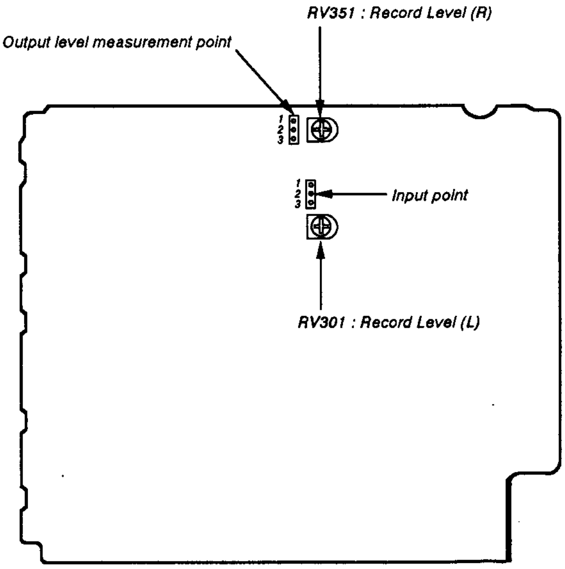
Adjustment Location : MAIN board

Adjustment Location

[AUDIO BOARD] − Component side −


RV301 : Playback Level (Deck B L-CH)
RV401 : Playback Level
(Deck B R-CH)
RV651 : Tape Speed (Normal)
RV652 : Tape Speed
(High)
RV311 : Playback Level
(Deck A L-CH)
RV341 : Record Bias (L-CH)
RV441 : Record Bias (R-CH)
RV411 : Playback Level
(Deck A R-CH)

[MAIN BOARD] − Component side −


RV351 : Record Level (R)
Output level measurement point
1
2
3
Input point
RV301 : Record Level (L)

TUNER SECTION

Precautions in Repairing

Note. 1 : The adjustment should be performed in the publication. (MW → FM → SW)

Note. 2 : As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

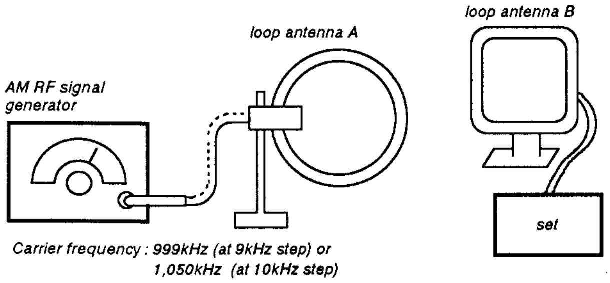
- Abbreviation

CND	: Canadian	AUS	: Australian
IT	: Italian	JE	: Tourist
G	: German	AR	: Argentine
EE	: East European	E2	: Tuner sections SW BAND do not exist.
SU	: Russian		
IA	: Indonesia	E3	: Tuner sections SW BAND exist.
EA	: Saudi Arabia		
HK	: Hong Kong	MX	: Mexican
SP	: Singapore	TH	: Thailand
MY	: Malaysia		

MW Tuned Indication Lighting Level

Setting :

Band : MW



Carrier frequency : 999kHz (at 9kHz step) or 1,050kHz (at 10kHz step)

Procedure :

1. Set loop antenna A so that the loop antenna B input level becomes 55dB μ/m (0.6mV/m)
2. Tune the set to 999kHz (at 9kHz step) or 1,050kHz (at 10kHz step).
3. Adjust RV41 (AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS model), RV42 (US, CND, E2, AUS, AR, MX, TH model) so that the TUNED indicator goes on.

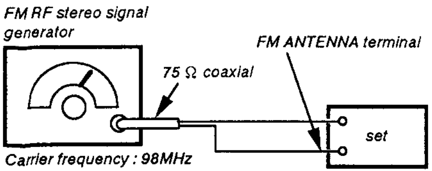
Adjustment Location : TCB board (see page 14)

FM Tuned Indication Lighting Level

Note : Always make the tuning level adjustment first. (Since it affects the the FM tuning level.)

Setting :

Band : FM



Carrier frequency : 98MHz
Modulation : OFF
Output level : 0.018mV (25dBμ)

Procedure :

1. Tune the set to 98MHz.
2. Adjust RV41 (US, CND, E2, AUS, AR, MX, TH model), RV42 (AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS model) so that the TUNED indicator goes on.

Adjustment Location : TCB board (see page 14)

SW Control Voltage Adjustment (Frequency Coverge Adjustment) (E3, EA, MY, SP, HK, JE model)

Setting :

Band : SW

Procedure :

1. Connect digital Voltmeter to diode D1 center lead and ground.
2. Adjust for a following value reading on digital voltmeter.

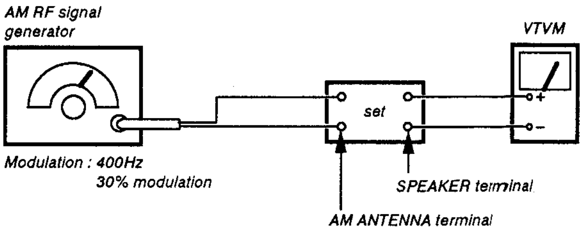
	Set frequency	Adjustment part	Reading on digital voltmeter
SW	5.95MHz	T2	1.2Vdc
	17.9MHz	CV2	8.5Vdc

Adjustment Location : TCB board (see page 14)

SW Tracking Adjustment (E3, EA, MY, SP, HK, JE, IA, CIS model)

Setting :

Band : SW



Modulation : 400Hz 30% modulation

Procedure :

Adjust for maximum reading on VTVM

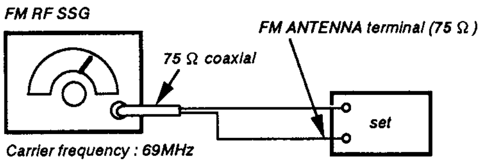
	Set frequency	Adjustment part
SW	7MHz	T1
	17MHz	CV1

- Repeat the procedures is each adjustment several times, and the frequency coverage and tracking adjustment should be finally done by the trimmer capacitors.

Adjustment Location : TCB board (see page 14)

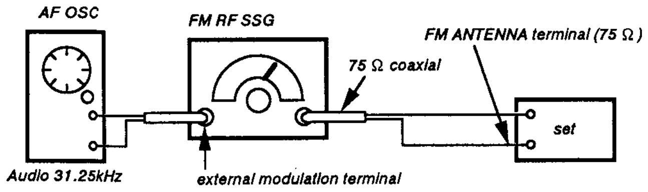
FM Poler Adjustment (CIS model only)

Connection 1 :


FM RF SSG
FM ANTENNA terminal (75 Ω)
75 Ω coaxial
set

Carrier frequency : 69MHz
Output level : 1mV (60dBV) (at 75Ω OPEN)
Modulation : AUDIO 1kHz, 10kHz Deviation

Connection 2 :


AF OSC
FM RF SSG
FM ANTENNA terminal (75 Ω)
75 Ω coaxial
set
Audio 31.25kHz
external modulation terminal

Carrier frequency : 69MHz
Output level :1mV (60dBV) (at 75Ω OPEN)
Modulation : AUDIO 31.25kHz, 10kHz Deviation
(EXTERNAL MODULATION)

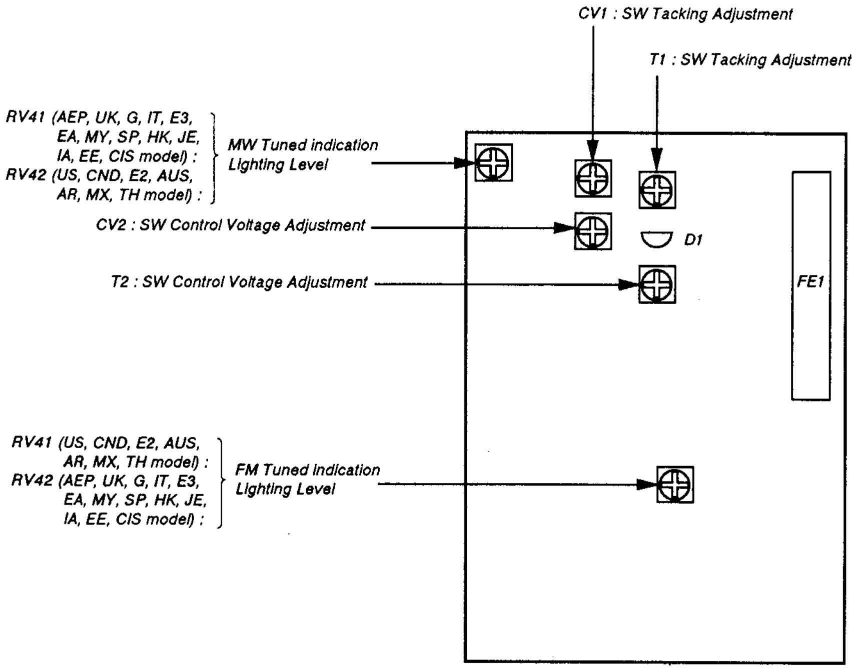
Procedure :

1. Sef the modulation of FM RF SSG to AUDIO 1kHz, 10kHz deviation according to "Connection 1".
2. Tune the set to 69 MHz.
3. Adjust the RV1702 so that the reading of frequency counter connected to TP1702 becomes within 31.25kHz ± 0.05kHz. (VCO adjustment)
4. Then record the reading of the level meter connected to TP1701.
5. Set the modulation of FM RF SSG to AUDIO 31.25kHz, 10kHz deviation according to "Connection 2".
6. Tune the set to 69 MHz.
7. Set the CT1701 to be mechanical center.
8. Adjust the L1701 so that the reading of the level meter connected to TP1701 becomes maximum.
   Then adjust the CT1701 so that the reading of the level meter connected to TP1701 becomes maximum. (SUB CARRIER PEAK Adjustment)
9. Adjust the RV1701 so that the level at the moment becomes 14dB higher value than the level recorded in step 4. (SUB CARRIER LEVEL Adjustment)

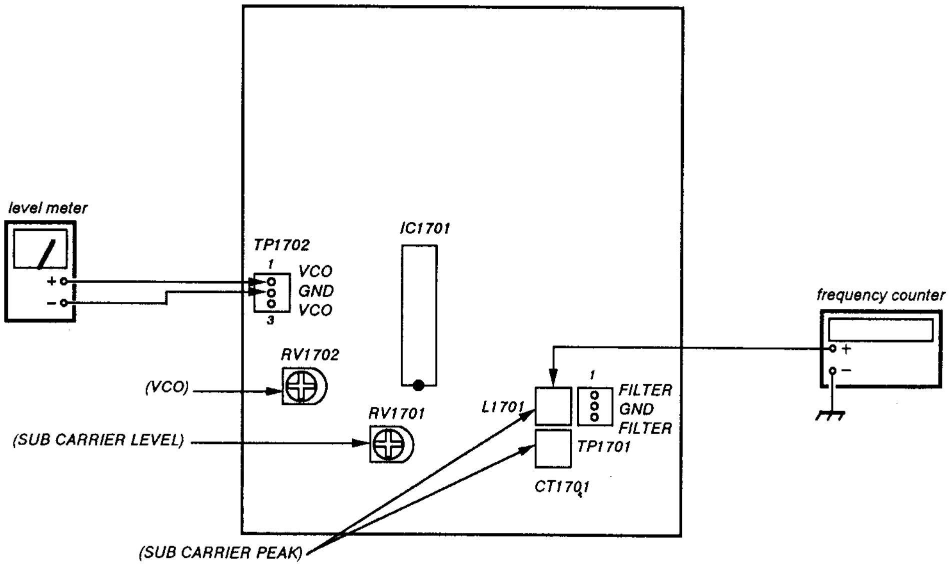
Adjustment Location : POLER board (see page 14)

Adjustment Location

[TCB BOARD] (Component side)


CV1 : SW Tacking Adjustment
T1 : SW Tacking Adjustment
RV41 (AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS model) :
RV42 (US, CND, E2, AUS, AR, MX, TH model) :
MW Tuned indication Lighting Level
CV2 : SW Control Voltage Adjustment
D1
T2 : SW Control Voltage Adjustment
FE1
RV41 (US, CND, E2, AUS, AR, MX, TH model) :
RV42 (AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS model) :
FM Tuned Indication Lighting Level

[POLER BOARD] (Component side)


level meter
+
−
TP1702
1
VCO
GND
VCO
3
IC1701
frequency counter
+
−
RV1702
(VCO)
RV1701
(SUB CARRIER LEVEL)
L1701
1
FILTER
GND
FILTER
TP1701
CT1701
(SUB CARRIER PEAK)

CD SECTION

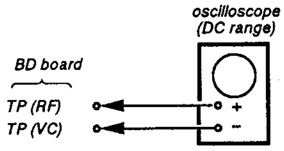
Note :

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10M Ω impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

Focus Bias Adjustment

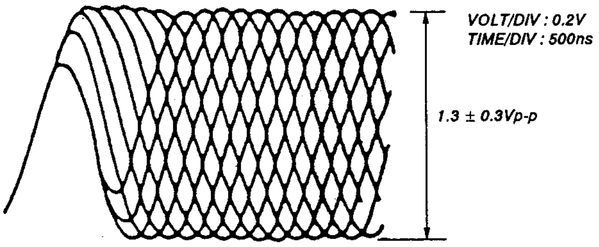
This adjustment is to be done when the optical block is replaced.

Adjustment procedure :



1. Connect oscilloscope to test point TP (VC) and TP (RF) on BD board.
2. Turned power switch ON. (Stop mode)
3. Put disc (YEDS-18) in and press the ▷II button.
4. Adjust RV101 so that the oscilloscope waveform is as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.

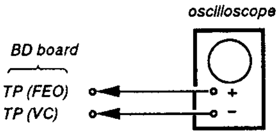
- RF signal reference waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Adjustment Location : BD board (see page 16)

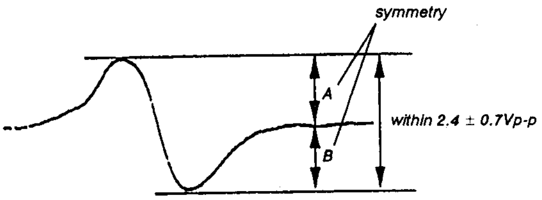
S-Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO) and BD board.
2. Connect between test point TP (FOK) and GND by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2.4 ± 0.7Vp-p.

S-curve waveform

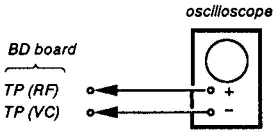


6. After check, remove the lead wire connected in step 2.

Note :
- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

Adjustment Location : BD board (see page 16)

RF Level Check



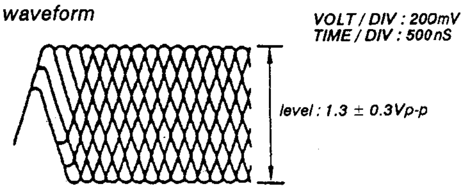
Procedure :

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and press the ▷II button.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

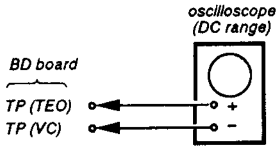
Clear RF signal waveform means that the shape " ◇ " can be clearly distinguished at the center of the waveform.

RF signal waveform



Adjustment Location : BD board (see page 16)

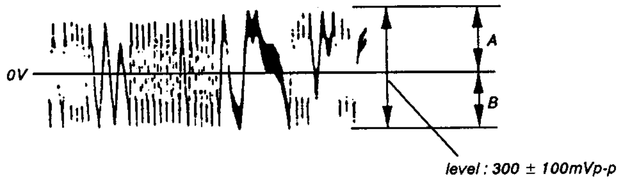
E-F Balance Check


oscilloscope
(DC range)
BD board
TP (TEO)
TP (VC)
+
-

Procedure :

1. Ground main board IC701 (pin ㊴) with the lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and press the ▷II button.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse waveform



Specified value : ● $\frac{A-B}{2(A+B)} \times 100$ = less than ± 7%

● $A+B = 300 \pm 100\text{mVp-p}$

6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

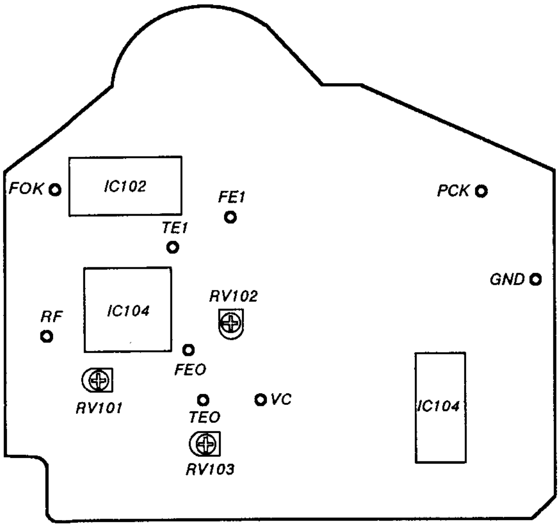
This gain has a margin, so even if it is slightly off. There is no problem.

Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location :

[BD BOARD] – Conductor side –


FOK
IC102
FE1
PCK
TE1
GND
IC104
RV102
RF
FEO
RV101
TEO
VC
IC104
RV103

SECTION 5
EXPLANATION OF IC TERMINALS

IC500 ASD0204-012-3BA (SYSTEM CONTROL /FL DRIVE)

Pin No.	Pin name	I/O	Description
1	VDD	–	Power supply. (+5V)
2	LED8	O	LED drive output. (EFFECT ON/OFF, GROOVE)
3	LED7	O	LED drive output. (DECK B : ▷ PLAY, ◁ PLAY)
4	LED6	O	LED drive output. (DECK B : ● REC, ❚❚ PAUSE)
5	LED5	O	LED drive output. (DECK A : ▷ PLAY, ◁ PLAY)
6	LED4	O	LED drive output. (TUNER/BAND, CLIP C)
7	LED3	O	LED drive output. (ENTER/NEXT, SONIC FORMATION)
8	LED2	O	LED drive output. (MULTI JOG STATION ⏮/⏭, ⬅/➡)
9	LED1	O	LED drive output. (MULTI JOG STATION +/ –)
10	$\overline{\text{RESET}}$	I	Reset terminal.
11	X2	–	Oscillator connection terminal. (5MHz)
12	X1	–	Oscillator connection terminal. (5MHz)
13	IC (VPP)	–	GND connection.
14	XT2	–	Oscillator connection terminal. (Not used : OPEN)
15	JOG-B	I	JOG dial encoder input.
16	VDD	–	Power supply. (+5V)
17	LED10	O	LED drive output. (CLIP B, DSP)
18	LED9	O	LED drive output. (CLIP A, ECHO)
19	KEY-SEL	O	Not used. (OPEN)
20	VOL-B	I	Volume encoder input.
21	REQ-GM	O	Data Transmission request output to master control (IC701).
22	CLK-MG	I	Clock input for communications with master control (IC701).
23	DATA-GM	O	Serial data output from master control (IC701).
24	DATA-MG	I	Serial data input from master control (IC701).
25	AVSS	–	GND
26 – 29	SPEANA4 – 1	I	Spectrum analyzer signal input.
30 – 33	KEY4 –1	I	Key data input. (A/D converter)
34	AVDD	–	Power supply for analog. (+5V)
35	AVREF	–	Reference Voltage for A/D converter. (+5V)
36	VOL-A	I	Volume encorder input.
37	JOG-A	I	JOG dial encorder input.
38	RDY-MG	I	Master control with Ready signal input. L : Ready
39	SIRCS	I	SIRCS signal input.
40	VSS	–	GND
41	LED14	O	LED drive output. (DISC 1)
42	LED SELECT	O	LED drive select output.
43	LED13	O	LED drive output. (▷❚❚)
44	LED12	O	LED drive output. (DISC 3)
45	LED11	O	LED drive output. (DISC 2)
46	VDD	–	Power supply. (+5V)
47 – 50	LEDS7 – 4	O	Not used. (OPEN)

Pin No.	Pin name	I/O	Description
51	LEDS3	O	LED drive output. (MULTI CD)
52	LEDS2	O	LED drive output. (MULTI TUNER)
53	LEDS1	O	LED drive output. (MULTI TIMER)
54 – 78	SEG32 – 8	O	Segment output to FL501.
79	V LOAD	–	Power supply for fluorescent indicator tube.
80 – 86	SEG7 – 1	O	Segment output to FL501.
87-100	GR14 – 1	O	Grid output to FL501.

IC701 TMP87CS64YF - 6361 (MASTER CONTROL)

Pin No.	Pin name	I/O	Description
1	VSS	–	GND
2	X OUT	O	Oscillator connection terminal (10MHz).
3	X IN	I	Oscillator connection terminal (10MHz).
4	$\overline{\text{RESET}}$	I	Reset signal input terminal. L : RESET
5	X OUT	O	Oscillator connection terminal (32KHz).
6	X IN	I	Oscillator connection terminal (32KHz).
7	GND (TEST)	–	Not used (GND).
8	$\overline{\text{AC CUT}}$	I	Power supply DET input terminal.
9	SUPER WOOFFER ON	O	SUPER WOOFFER ON/OFF control.
10	ST MUTE ON	O	TUNER Mute ON/OFF control.
11	$\overline{\text{180 A PLAY}}$	I	Not used (GND).
12	$\overline{\text{180 B PLAY}}$	I	Not used (GND).
13	$\overline{\text{180 B REC}}$	I	Not used (GND).
14	$\overline{\text{V • DET}}$ CLOCK CHECK	I	Voltage Detection terminal. (for CLOCK BACK UP)
15	$\overline{\text{DO UP (5CD)}}$	I	UP/DOWN MOTOR control. Not used (OPEN).
16	$\overline{\text{TRY CLOSE (1CD)}}$	I	Not used (GND).
17 – 19	ENCODER 1 – 3	I	Rotary encoder input terminal.
20	$\overline{\text{OUT SW OPEN}}$	I	Loading out switch input.
21	LOAD IN	O	Loading Motor control output (Loading input).
22	LOAD OUT	O	Loading Motor control output (Loading output).
23	TBL-L	O	Table motor control output.
24	TBL-R	O	Table motor control output.
25	SCOR	I	Sub code SYNC input from DSP (IC103).
26	TBL SENS	I	Table Sensor input.
27	RDS INT	I	RDS DATA START signal input.
28	RDS DATA	I	RDS DATA input.
29	DF LAT	O	Latch output to the digital filter (IC104).
30	SENS	I	Sens signal input from the DSP (IC103).
31	$\overline{\text{XRST}}$	O	CD reset signal output terminal.
32	$\overline{\text{MG • RDY}}$	I/O	System control (IC500) with Ready signal input/output. L : Ready
33	$\overline{\text{ADJ}}$	I	CD test mode terminal. L : ADJ Mode
34	$\overline{\text{GM REQ}}$	I	Data transmission request input from system control (IC500).
35	MG CLK	O	Clock output for communications with system control (IC500).
36	GM DATA	I	Serial data input from system control (IC500).
37	MG DATA	O	Serial data output to system control (IC500).
38	CD CLK	O	Serial data transfer clock output to DSP (IC103) and digital filter (IC104).
39	$\overline{\text{ADJ 2}}$	I	CD test mode terminal. L : ADJ 2 Mode
40	CD DATA	O	Serial data output to DSP (IC103) and digital filter (IC104).
41	DBFB ON	O	Not used (OPEN).
42	DBFB OFF	O	Not used (OPEN).
43	FOCUS SW	O	High-pass gain select output of the focus servo.
44	SQ CLK	O	Sub code Q read clock output to the DSP (IC103).
45	SQ DATA	I	Sub code Q data input from DSP (IC103).

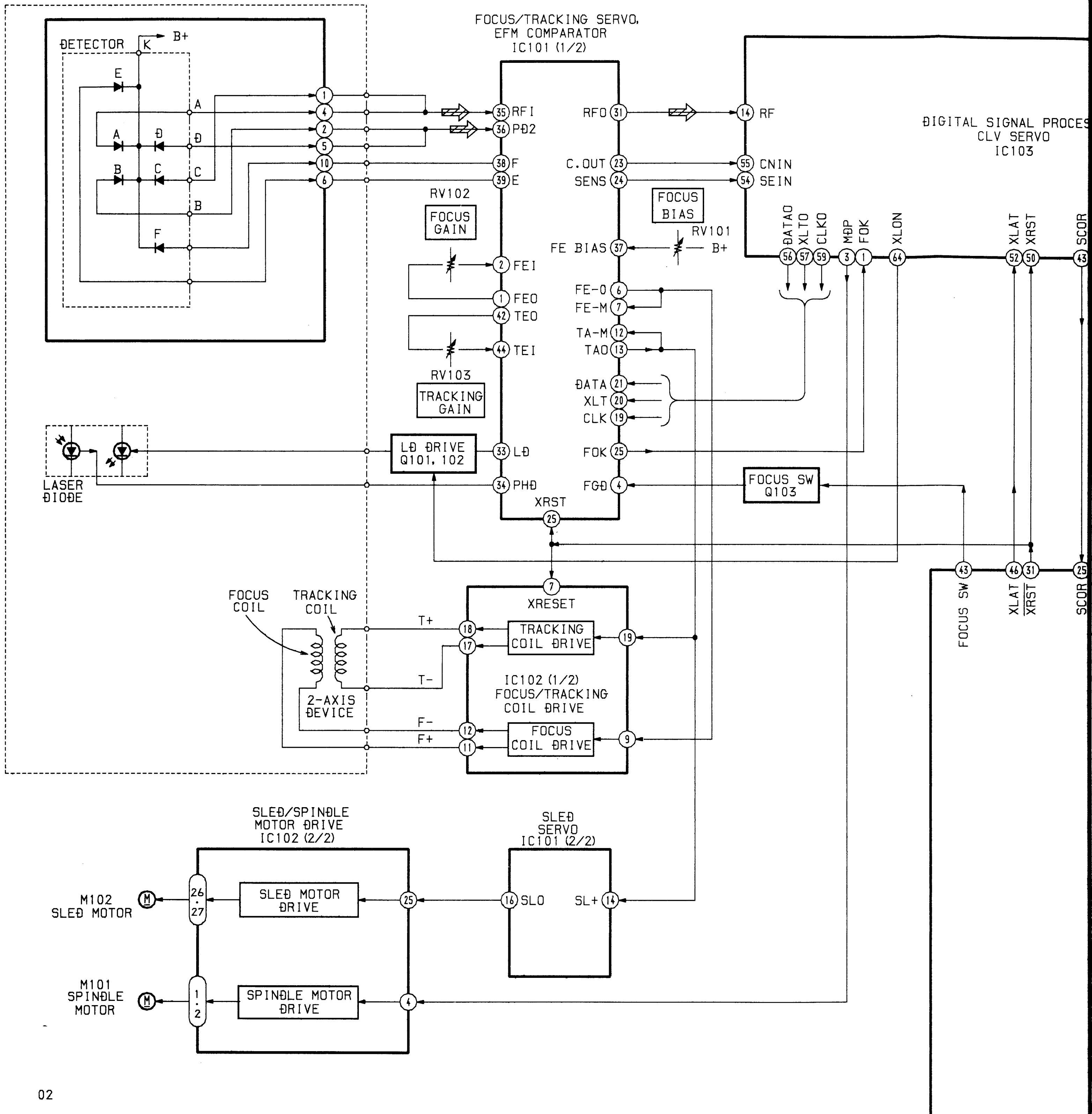
Pin No.	Pin name	I/O	Description
46	X-LAT	O	Serial data latch output to the DSP (IC103).
47	TEST	O	Terminal for test mode.
48	VAREF	–	Reference Voltage for A/D converter. (+5V)
49	VASS	–	GND for analog (GND).
50	VSS	–	GND
51	VDD	–	Power supply. (+5V)
52	SPEC	I	Terminal for mechanism selection.
53	DESTINATION	I	Terminal for model selection.
54	DISC SENS	I	Disc Sensor input terminal.
55	TC RELAY	O	REC/PB head selector signal output.
56	A-SHUT	I	Deck-A reel table detect.
57	B-SHUT	I	Deck-B reel table detect.
58	B-HALF	I	Deck-B cassette detect.
59	A-HALF	I	Deck-A cassette detect.
60	220 A PLAY	I	Deck-A play detect.
61	220 B PLAY	I	Deck-B play detect.
62	62427-LAT	O	Serial data latch output to IC 901.
63	K-CON-LAT	O	Not used (OPEN).
64	VOL-LAT (AV)	O	Not used (OPEN).
65	FRONT • SP RELAY B	O	Front speaker Relay Drive output.
66	REAR • SP RELAY C	O	Rear speaker Relay Drive output.
67	POWER ON	O	Power ON output. L : ON
68	CD POWER	O	CD power switch output.
69	PROLOG LAT	O	Not used (OPEN).
70	MUTE	O	Mute ON/OFF control. L : Mute ON
71	COM CLK	O	System clock (COM) output.
72	COM DIN	I	Serial data input from tuner.
73	COM DATA	O	Serial data (COM) output.
74	K-COM-ON	O	Not used (OPEN).
75	RIGID LED	O	Not used (OPEN).
76	MD/VIDEO	O	MD/VIDEO level chage output. (not used)
77	DBFB HIGH	O	DBFB LOW/HIGH control. L : DBFB High
78	CD PWM SEL	O	Tray mechanism control selection (GND connection).
79	PRO LOGIC RELAY	O	Not used (OPEN).
80	TC-A	O	Deck A/B Selection output. L : Deck-A
81	NORM	O	NORMAL/HIGH Selection output. L : Normal (for tape EQ)
82	BIAS OFF	O	Bias ON/OFF Selection output. L : Bias OFF
83	REC MUTE	O	REC Mute ON/OFF Selection output. L : Mute ON
84	NR OFF	O	NR ON/OFF Selection output. L : NR OFF
85	PB	O	REC/PB Selection output. L : PB
86	PASS • AMP/DOLBY	O	Dolby pass signal output.
87	LINE MUTE ON	O	Line mute signal output. L : Mute ON
88	CAP • M HIGH	O	Capstan moter HIGH/LOW Selection output. L : High
89	A - TRG	O	Trigger motor control output.
90	B - TRG	O	Trigger motor control output.

Pin No.	Pin name	I/O	Description
91	$\overline{\text{TRG LOW}}$	O	Trigger motor HIGH/LOW control output. L : LOW
92	$\overline{\text{CAP • M ON}}$	O	Capstan motor ON/OFF control output. L : ON
93	$\overline{\text{STEREO}}$	I	FM/AM Stereo identification. L : Stereo
94	$\overline{\text{TUNED}}$	I	FM/AM Tuning identification. L : Tuning
95	ST-CE	O	Chip enable output to Tuner.
96	$\overline{\text{DELAY SEL • MIC}}$	O	Not used (OPEN).
97	$\overline{\text{DELAY ON}}$	O	Delay ON/OFF control output. L : Delay ON
98	DELAY LEVEL-A	O	Delay level control output.
99	DELAY LEVEL-B	O	Delay level control output.
100	VDD	–	Power supply. (+5V)

SECTION 6
DIAGRAMS

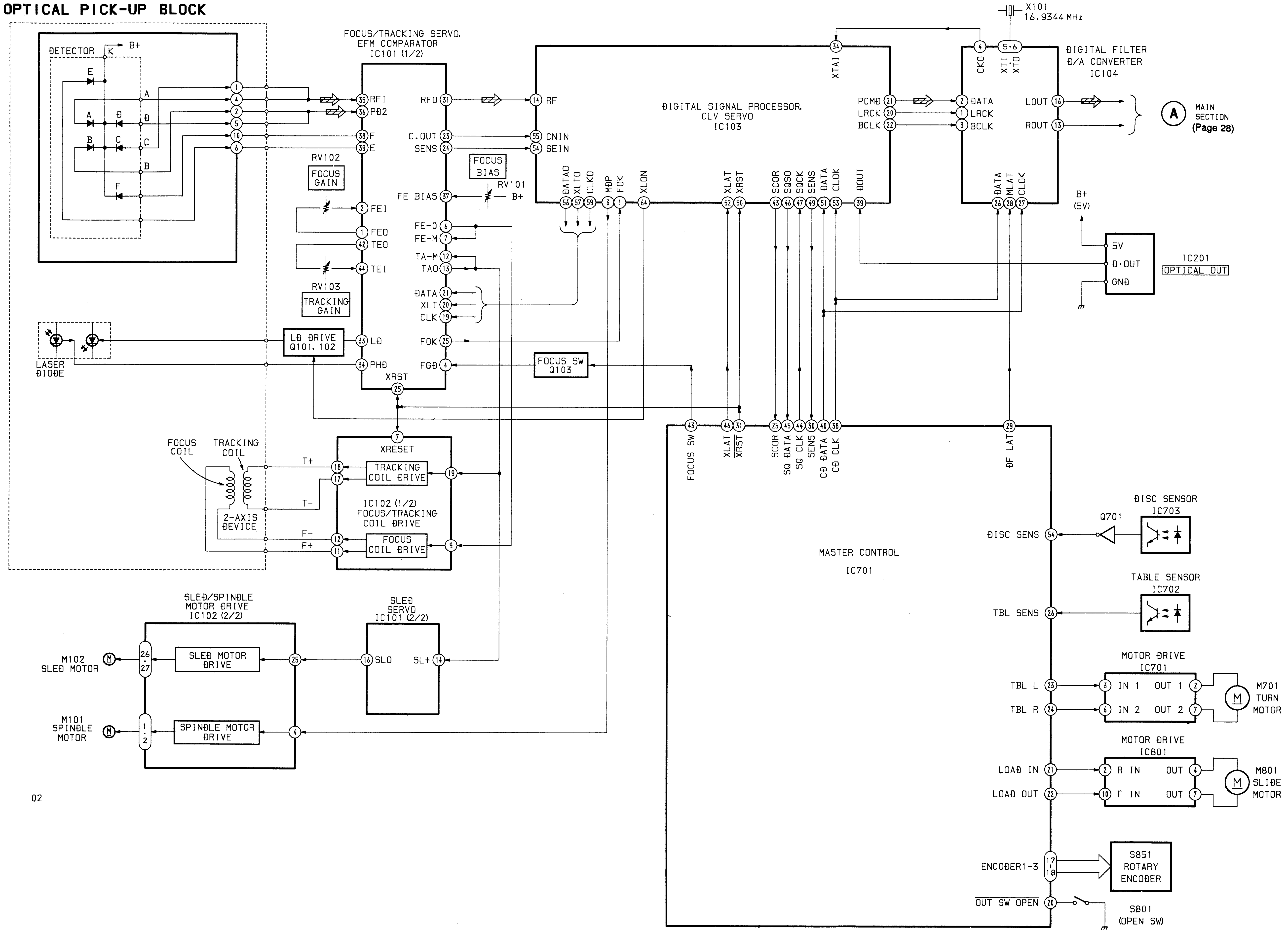
6-1. BLOCK DIAGRAM – CD SECTION –

OPTICAL PICK-UP BLOCK


DETECTOR
K
B+
E
A
D
B
C
F
LASER DIODE
RV102
FOCUS GAIN
RV103
TRACKING GAIN
LD DRIVE Q101, 102
FOCUS/TRACKING SERVO, EFM COMPARATOR IC101 (1/2)
RFI
PD2
F
E
FEI
FEO
TEO
TEI
LD
PHD
XRST
RFO
C.OUT
SENS
FE BIAS
FE-O
FE-M
TA-M
TAO
DATA
XLT
CLK
FOK
FGD
FOCUS BIAS
RV101
B+
FOCUS SW Q103
DIGITAL SIGNAL PROCES
CLV SERVO
IC103
RF
CNIN
SEIN
DATAO
XLTO
CLKO
MDP
FOK
XLON
XLAT
XRST
SCOR
FOCUS SW
XLAT
$\overline{\text{XRST}}$
SCOR
FOCUS COIL
TRACKING COIL
2-AXIS DEVICE
T+
T-
F-
F+
XRESET
TRACKING COIL DRIVE
IC102 (1/2) FOCUS/TRACKING COIL DRIVE
FOCUS COIL DRIVE
SLED/SPINDLE MOTOR DRIVE IC102 (2/2)
SLED MOTOR DRIVE
SPINDLE MOTOR DRIVE
M102 SLED MOTOR
M101 SPINDLE MOTOR
M
SLED SERVO IC101 (2/2)
SLO
SL+
02

SECTION 6
DIAGRAMS

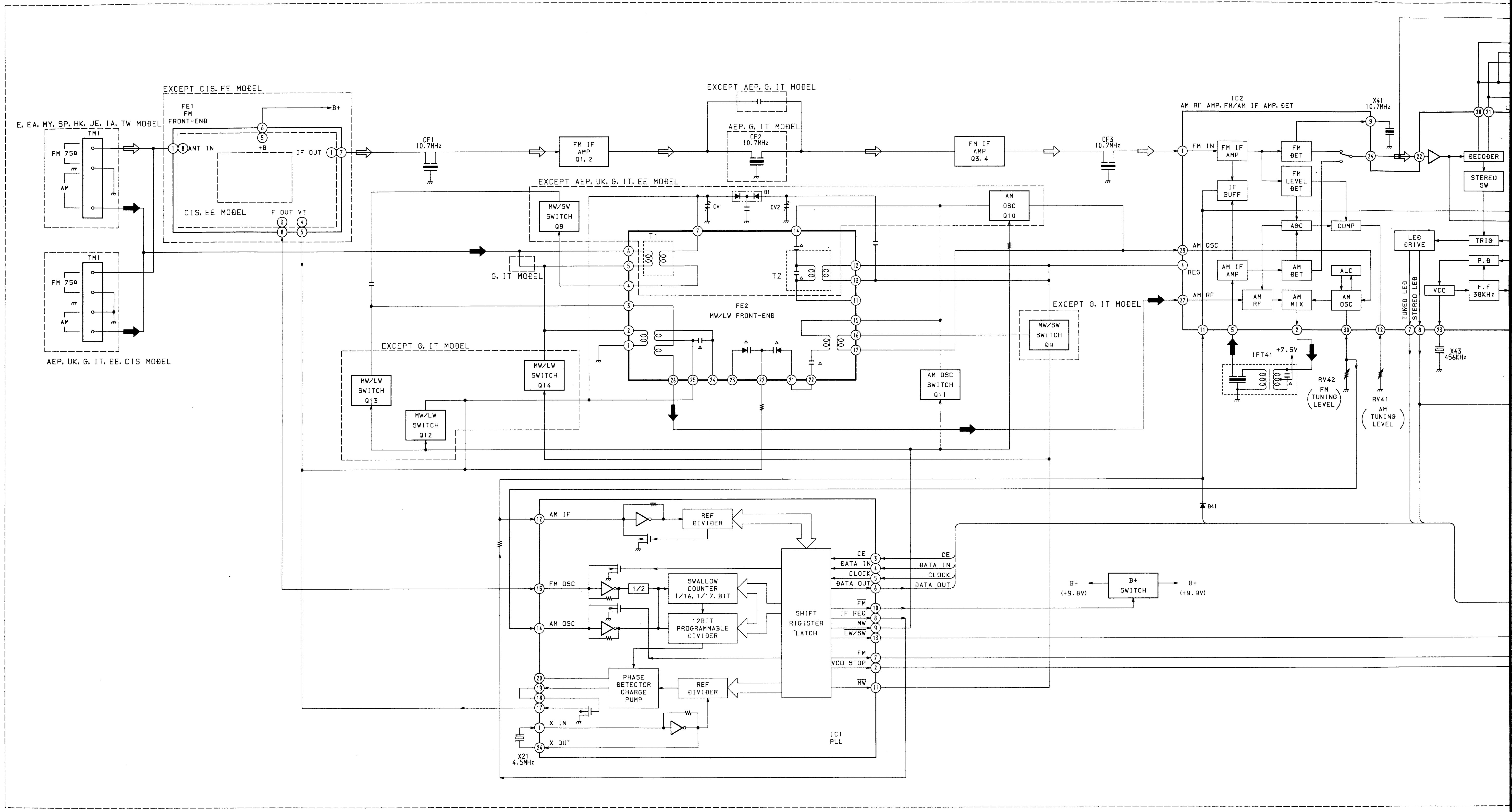
6-1. BLOCK DIAGRAM – CD SECTION –

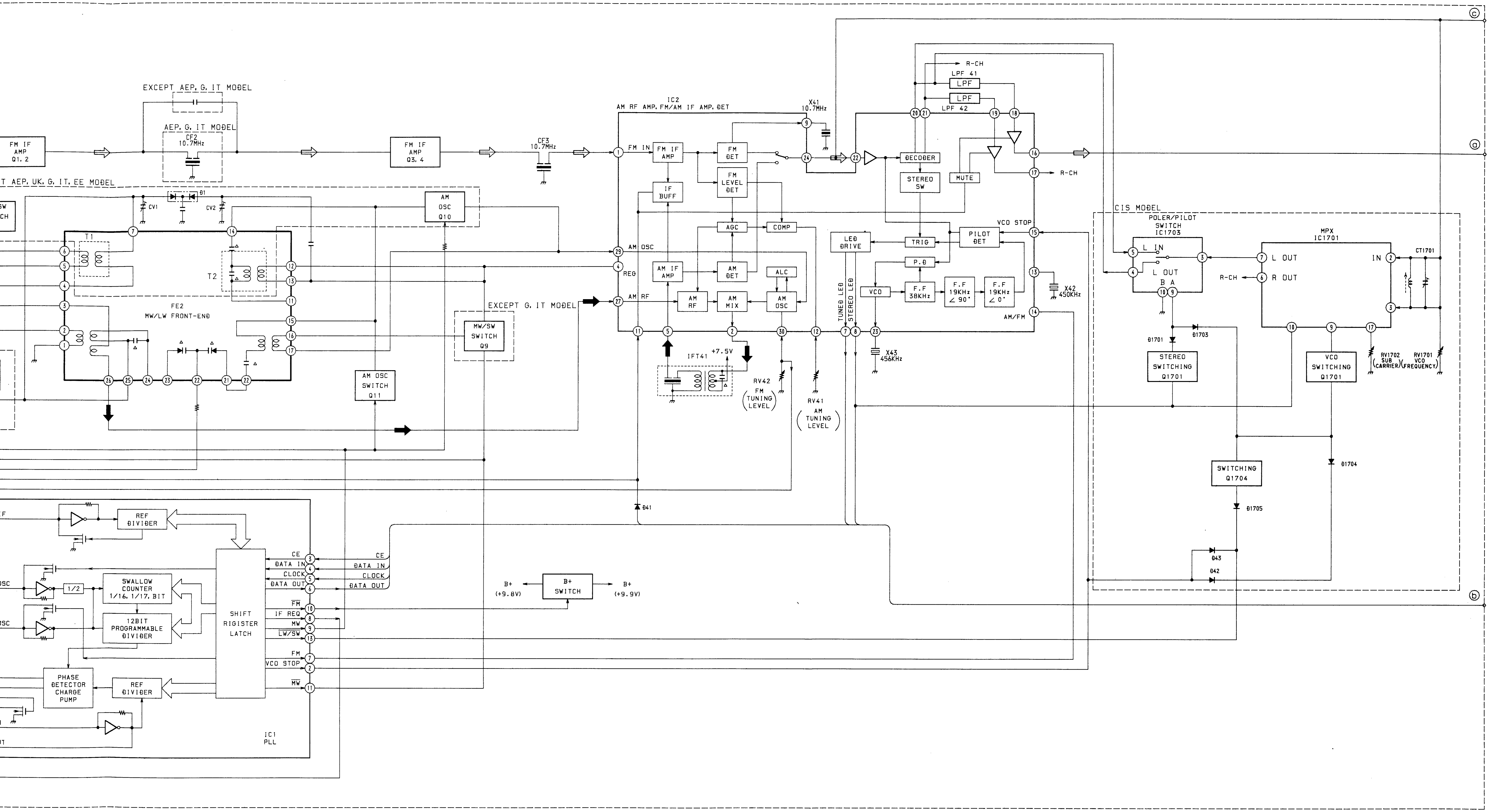

OPTICAL PICK-UP BLOCK
DETECTOR
K
B+
E
A
D
B
C
F
LASER DIODE
FOCUS/TRACKING SERVO, EFM COMPARATOR IC101 (1/2)
RFI
PD2
F
E
RFO
C.OUT
SENS
RV102
FOCUS GAIN
FEI
FEO
TEO
TEI
RV103
TRACKING GAIN
FOCUS BIAS
RV101
FE BIAS
FE-O
FE-M
TA-M
TAO
DATA
XLT
CLK
FOK
FGD
LD DRIVE Q101, 102
LD
PHD
XRST
FOCUS SW Q103
DIGITAL SIGNAL PROCESSOR, CLV SERVO IC103
XTAI
RF
CNIN
SEIN
DATAO
XLTO
CLKO
MDP
FOK
XLON
XLAT
XRST
SCOR
SQSO
SQCK
SENS
DATA
CLOK
DOUT
PCMD
LRCK
BCLK
X101 16.9344 MHz
CKO
XTI
XTO
DIGITAL FILTER D/A CONVERTER IC104
DATA
LRCK
BCLK
LOUT
ROUT
DATA
MLAT
CLOK
A
MAIN SECTION (Page 28)
B+ (5V)
5V
D·OUT
GND
IC201 OPTICAL OUT
FOCUS COIL
TRACKING COIL
2-AXIS DEVICE
T+
T-
F-
F+
XRESET
TRACKING COIL DRIVE
IC102 (1/2) FOCUS/TRACKING COIL DRIVE
FOCUS COIL DRIVE
SLED/SPINDLE MOTOR DRIVE IC102 (2/2)
M102 SLED MOTOR
SLED MOTOR DRIVE
M101 SPINDLE MOTOR
SPINDLE MOTOR DRIVE
SLED SERVO IC101 (2/2)
SLO
SL+
FOCUS SW
XLAT
XRST
SCOR
SQ DATA
SQ CLK
SENS
CD DATA
CD CLK
DF LAT
MASTER CONTROL IC701
DISC SENSOR IC703
Q701
DISC SENS
TABLE SENSOR IC702
TBL SENS
MOTOR DRIVE IC701
TBL L
TBL R
IN 1
IN 2
OUT 1
OUT 2
M701 TURN MOTOR
MOTOR DRIVE IC801
LOAD IN
LOAD OUT
R IN
F IN
OUT
M801 SLIDE MOTOR
ENCODER1-3
S851 ROTARY ENCODER
OUT SW OPEN
S801 (OPEN SW)

02

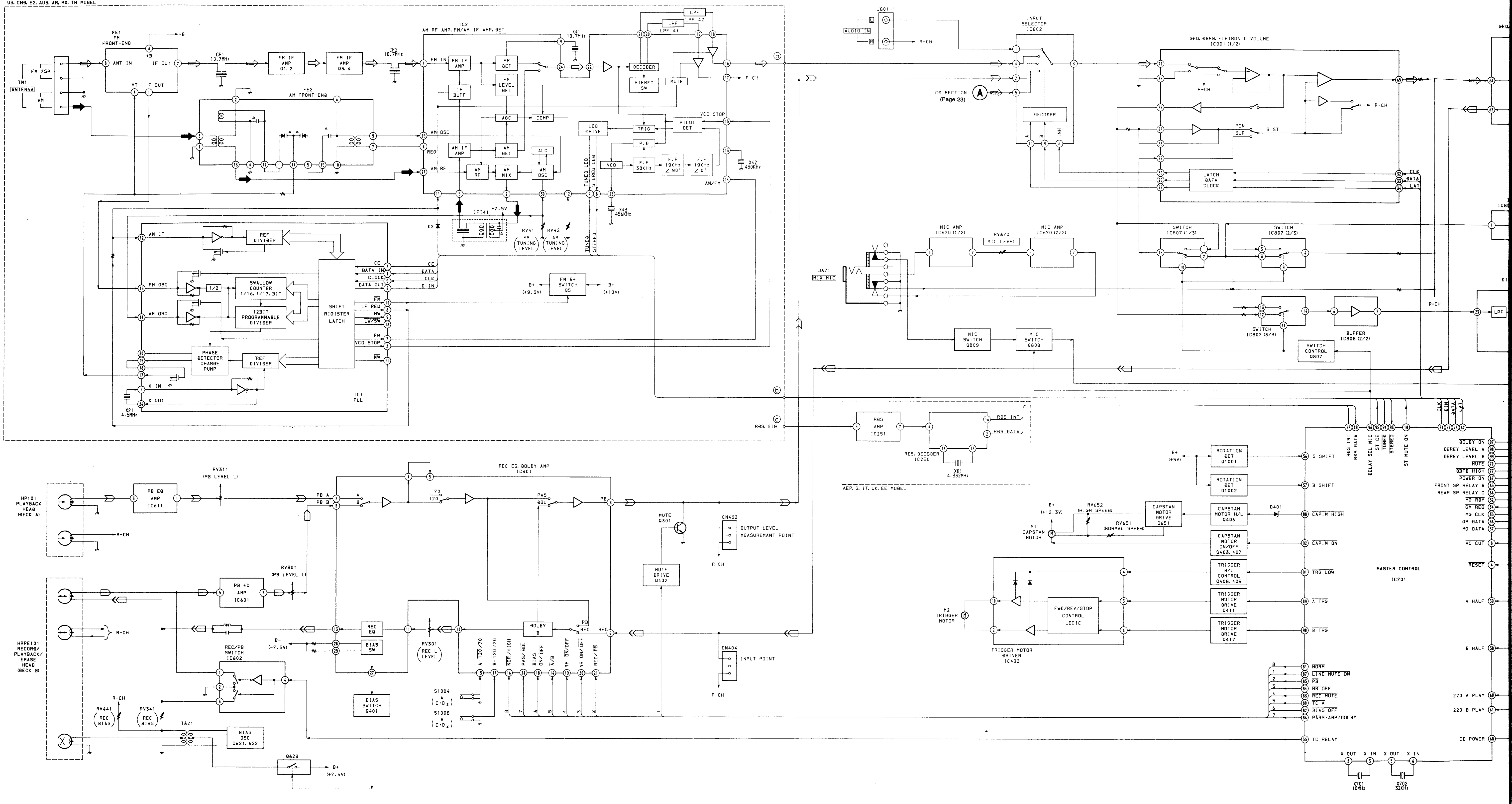
6-2. BLOCK DIAGRAM – MAIN SECTION (1) –

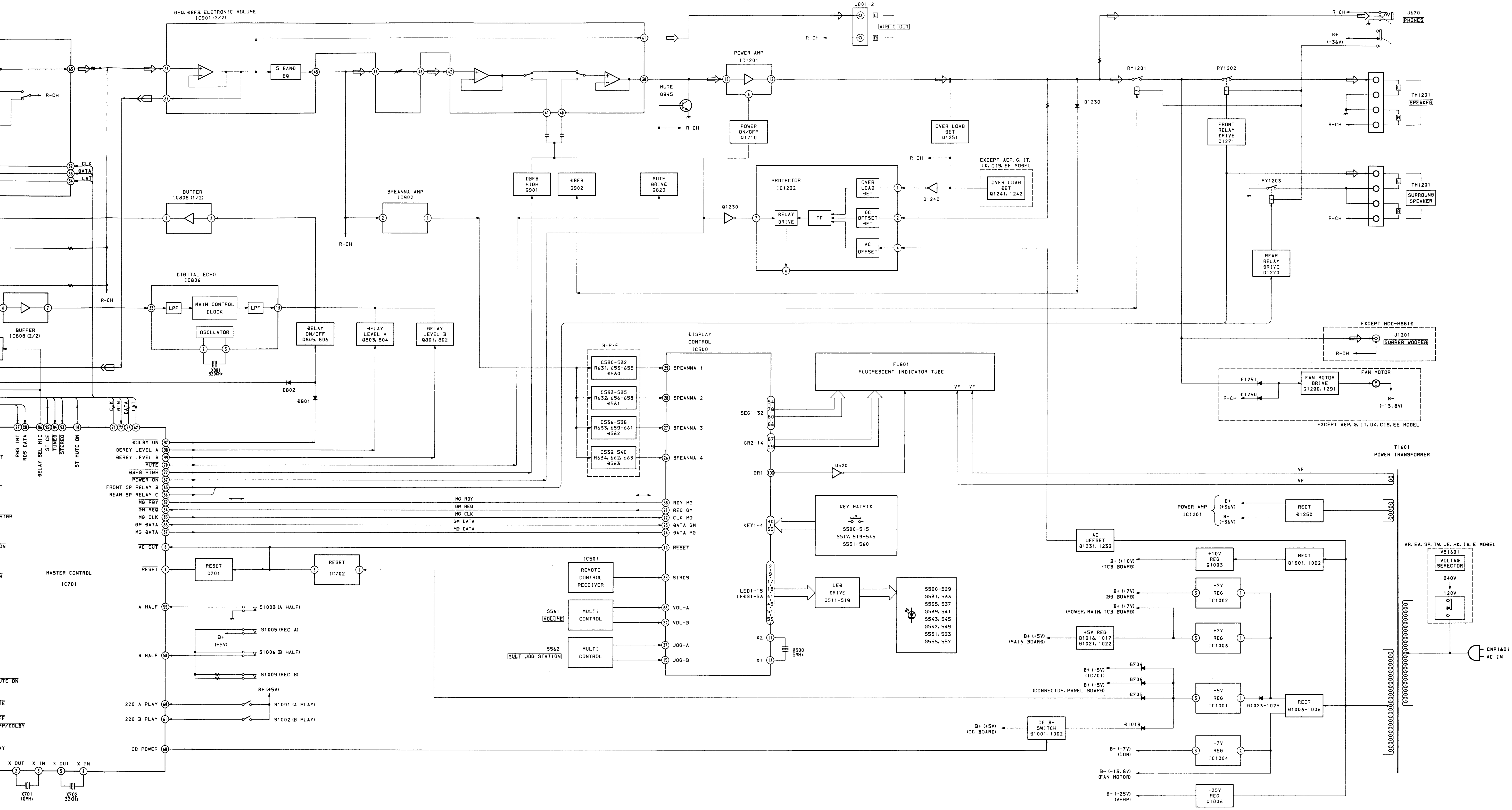
AEP, UK, G, IT, EE, CIS, E, EA, MY, SP, HK, JE, IA TW MODEL


E, EA, MY, SP, HK, JE, IA, TW MODEL
TM1
FM 75Ω
AM
AEP, UK, G, IT, EE, CIS MODEL
EXCEPT CIS, EE MODEL
FE1 FM FRONT-END
ANT IN
+B
IF OUT
B+
CIS, EE MODEL
F OUT
VT
CF1 10.7MHz
FM IF AMP Q1, 2
EXCEPT AEP, G, IT MODEL
AEP, G, IT MODEL
CF2 10.7MHz
FM IF AMP Q3, 4
CF3 10.7MHz
EXCEPT AEP, UK, G, IT, EE MODEL
MW/SW SWITCH Q8
D1
CV1
CV2
T1
T2
G, IT MODEL
FE2 MW/LW FRONT-END
AM OSC Q10
EXCEPT G, IT MODEL
MW/SW SWITCH Q9
EXCEPT G, IT MODEL
MW/LW SWITCH Q13
MW/LW SWITCH Q14
MW/LW SWITCH Q12
AM OSC SWITCH Q11
IC2 AM RF AMP, FM/AM IF AMP, DET
X41 10.7MHz
FM IN
FM IF AMP
FM DET
FM LEVEL DET
IF BUFF
AGC
COMP
AM OSC
REG
AM IF AMP
AM DET
ALC
AM RF
AM RF
AM MIX
AM OSC
DECODER
STEREO SW
LED DRIVE
TRIG
P.D
VCO
F.F 38KHz
TUNED LED
STEREO LED
X43 456KHz
IFT41
+7.5V
RV42 FM TUNING LEVEL
RV41 AM TUNING LEVEL
D41
AM IF
REF DIVIDER
FM OSC
1/2
SWALLOW COUNTER 1/16, 1/17, BIT
AM OSC
12BIT PROGRAMMABLE DIVIDER
SHIFT RIGISTER LATCH
PHASE DETECTOR CHARGE PUMP
REF DIVIDER
X IN
X OUT
X21 4.5MHz
IC1 PLL
CE
DATA IN
CLOCK
DATA OUT
FM
IF REQ
MW
LW/SW
FM
VCO STOP
MW
B+ (+9.8V)
B+ SWITCH
B+ (+9.9V)

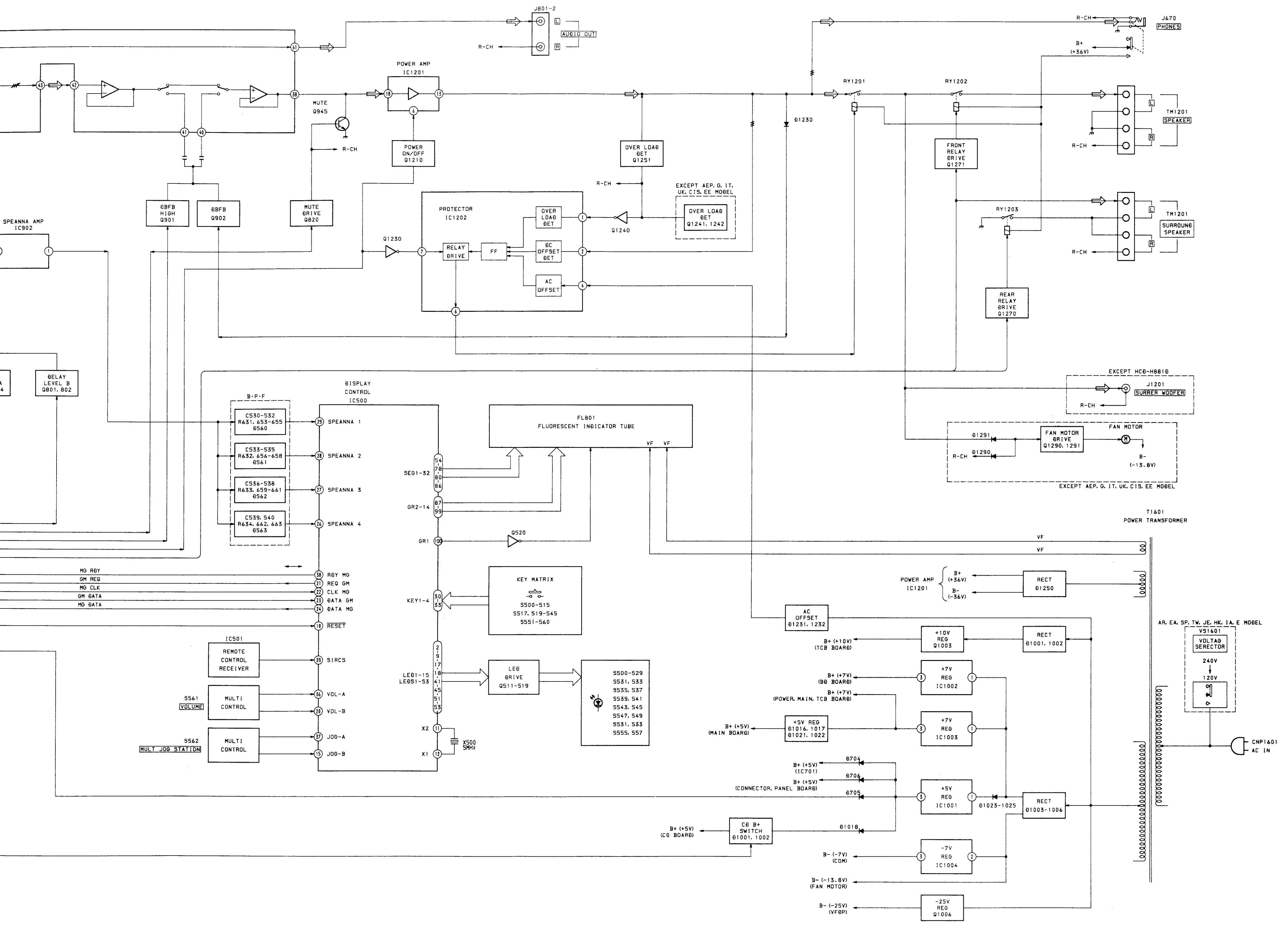

EXCEPT AEP, G, IT MODEL
AEP, G, IT MODEL
CF2
10.7MHz
FM IF
AMP
Q1, 2
FM IF
AMP
Q3, 4
CF3
10.7MHz
T AEP, UK, G, IT, EE MODEL
D1
CV1
CV2
AM
OSC
Q10
T1
T2
FE2
MW/LW FRONT-END
AM OSC
SWITCH
Q11
EXCEPT G, IT MODEL
MW/SW
SWITCH
Q9
IC2
AM RF AMP, FM/AM IF AMP, DET
X41
10.7MHz
FM IN
FM IF
AMP
FM
DET
FM
LEVEL
DET
IF
BUFF
AGC
COMP
AM OSC
REG
AM RF
AM IF
AMP
AM
DET
ALC
AM
RF
AM
MIX
AM
OSC
IFT41
+7.5V
RV42
FM
TUNING
LEVEL
RV41
AM
TUNING
LEVEL
D41
R-CH
LPF 41
LPF
LPF
LPF 42
DECODER
STEREO
SW
MUTE
R-CH
VCO STOP
LED
DRIVE
TRIG
PILOT
DET
P.D
VCO
F.F
38KHz
F.F
19KHz
∠ 90°
F.F
19KHz
∠ 0°
X42
450KHz
X43
456KHz
TUNED LED
STEREO LED
AM/FM
CIS MODEL
POLER/PILOT
SWITCH
IC1703
L IN
L OUT
B A
R-CH
MPX
IC1701
L OUT
R OUT
IN
CT1701
D1701
D1703
STEREO
SWITCHING
Q1701
VCO
SWITCHING
Q1701
RV1702
SUB
CARRIER
RV1701
VCO
FREQUENCY
SWITCHING
Q1704
D1704
D1705
D43
D42
Ⓒ
ⓐ
ⓑ
REF
DIVIDER
1/2
SWALLOW
COUNTER
1/16, 1/17, BIT
12BIT
PROGRAMMABLE
DIVIDER
PHASE
DETECTOR
CHARGE
PUMP
REF
DIVIDER
SHIFT
RIGISTER
LATCH
CE
DATA IN
CLOCK
DATA OUT
FM
IF REQ
MW
LW/SW
FM
VCO STOP
MW
CE
DATA IN
CLOCK
DATA OUT
IC1
PLL
B+
(+9.8V)
B+
SWITCH
B+
(+9.9V)
F
SW
CH
OSC
OSC
T

6-3. BLOCK DIAGRAM – MAIN SECTION (2) –

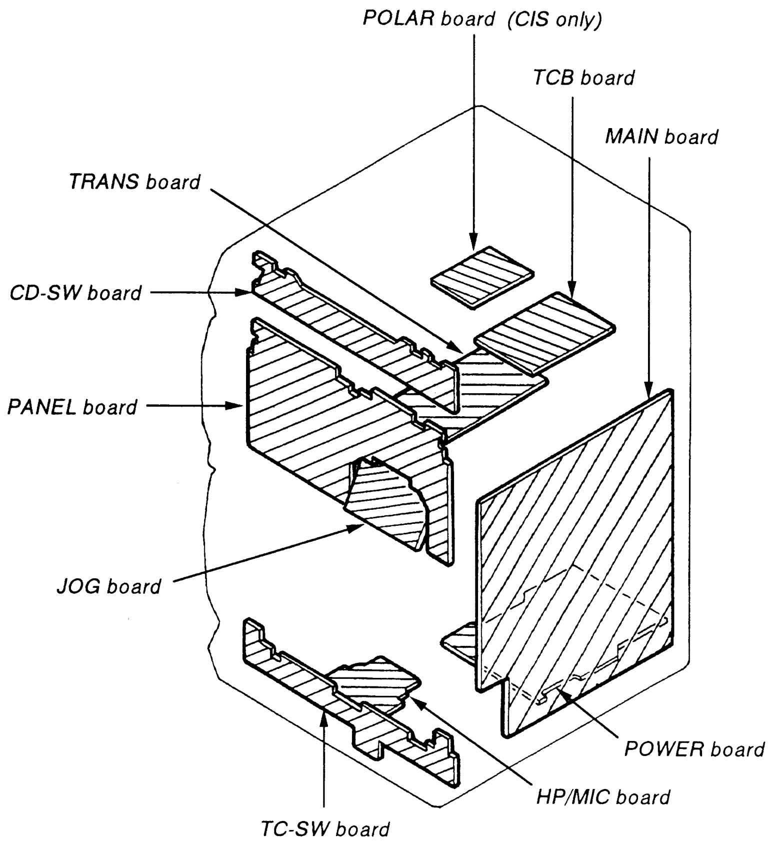

US, CND, E2, AUS, AR, MX, TH MODEL
TM1 ANTENNA
FM 75Ω
AM
FE1 FM FRONT-END
ANT IN
IF OUT
VT
F OUT
CF1 10.7MHz
FM IF AMP Q1, 2
FM IF AMP Q3, 4
CF2 10.7MHz
FE2 AM FRONT-END
IC2 AM RF AMP, FM/AM IF AMP, DET
FM IN
FM IF AMP
FM DET
FM LEVEL DET
IF BUFF
AGC
COMP
AM OSC
REG
AM RF
AM IF AMP
AM DET
ALC
AM RF
AM MIX
AM OSC
X41 10.7MHz
DECODER
STEREO SW
MUTE
LPF
LPF 42
LPF 41
LED DRIVE
TRIG
PILOT DET
VCO STOP
P.D
VCO
F.F 38KHz
F.F 19KHz ∠90°
F.F 19KHz ∠0°
X42 450KHz
X43 456KHz
AM/FM
TUNED LED
STEREO LED
TUNED
STEREO
R-CH
IFT41
+7.5V
D2
RV41 FM TUNING LEVEL
RV42 AM TUNING LEVEL
AM IF
REF DIVIDER
FM OSC
1/2
SWALLOW COUNTER 1/16, 1/17, BIT
AM OSC
12BIT PROGRAMMABLE DIVIDER
SHIFT REGISTER LATCH
CE
DATA IN
CLOCK
DATA OUT
FM
IF REQ
MW
LW/SW
FM
VCO STOP
MW
CE
DATA
CLK
D.IN
PHASE DETECTOR CHARGE PUMP
REF DIVIDER
X IN
X OUT
X21 4.5MHz
IC1 PLL
FM B+ SWITCH Q5
B+ (+9.5V)
B+ (+10V)
RDS SIG
J801-1
AUDIO IN
L
R
INPUT SELECTOR IC802
DECODER
CD SECTION (Page 23)
A
INH
GEQ, DBFB, ELETRONIC VOLUME IC901 (1/2)
PON
SUR
S ST
LATCH DATA CLOCK
CLK
DATA
LAT
MIC AMP IC670 (1/2)
RV670 MIC LEVEL
MIC AMP IC670 (2/2)
J671 MIX MIC
SWITCH IC807 (1/3)
SWITCH IC807 (2/3)
SWITCH IC807 (3/3)
BUFFER IC808 (2/2)
SWITCH CONTROL Q807
MIC SWITCH Q809
MIC SWITCH Q808
LPF
RDS AMP IC251
RDS DECODER IC250
RDS INT
RDS DATA
X61 4.332MHz
AEP, G, IT, UK, EE MODEL
RDS INT
RDS DATA
DELAY SEL MIC
ST CE
TUNED
STEREO
ST MUTE ON
DOLBY ON
DEREY LEVEL A
DEREY LEVEL B
MUTE
DBFB HIGH
POWER ON
FRONT SP RELAY B
REAR SP RELAY C
MD RDY
DM REQ
MD CLK
DM DATA
MD DATA
AC CUT
RESET
A HALF
B HALF
220 A PLAY
220 B PLAY
CD POWER
MASTER CONTROL IC701
B+ (+5V)
ROTATION DET Q1001
ROTATION DET Q1002
S SHIFT
B SHIFT
B+ (+12.3V)
RV652 (HIGH SPEED)
RV651 (NORMAL SPEED)
M1 CAPSTAN MOTOR
CAPSTAN MOTOR DRIVE Q651
CAPSTAN MOTOR H/L Q406
D401
CAP.M HIGH
CAPSTAN MOTOR ON/OFF Q403, 407
CAP.M ON
TRIGGER H/L CONTROL Q408, 409
TRG LOW
TRIGGER MOTOR DRIVE Q411
A TRG
TRIGGER MOTOR DRIVE Q412
B TRG
M2 TRIGGER MOTOR
FWD/REV/STOP CONTROL LOGIC
TRIGGER MOTOR DRIVER IC402
NORM
LINE MUTE ON
PB
NR OFF
REC MUTE
TC A
BIAS OFF
PASS-AMP/DOLBY
TC RELAY
X OUT
X IN
X701 10MHz
X702 32KHz
HP101 PLAYBACK HEAD (DECK A)
PB EQ AMP IC611
RV311 (PB LEVEL L)
REC EQ, DOLBY AMP IC401
PB A
PB B
70
120
PAS
DOL
MUTE Q301
CN403 OUTPUT LEVEL MEASUREMANT POINT
MUTE DRIVE Q402
RV301 (PB LEVEL L)
HRPE101 RECORD/PLAYBACK/ERASE HEAD (DECK B)
PB EQ AMP IC601
REC EQ
BIAS SW
B- (-7.5V)
RV301 (REC L LEVEL)
DOLBY B
REC
CN404 INPUT POINT
REC/PB SWITCH IC602
A·120/70
B·120/70
NOR/HIGH
PAS/DOL
BIAS ON/OFF
A/B
NR ON/OFF
REC/PB
S1004 A (C/O₂)
S1008 B (C/O₂)
BIAS SWITCH Q401
R-CH
RV441 (REC BIAS)
RV341 (REC BIAS)
T621
BIAS OSC Q621, 622
Q623
B+ (+7.5V)

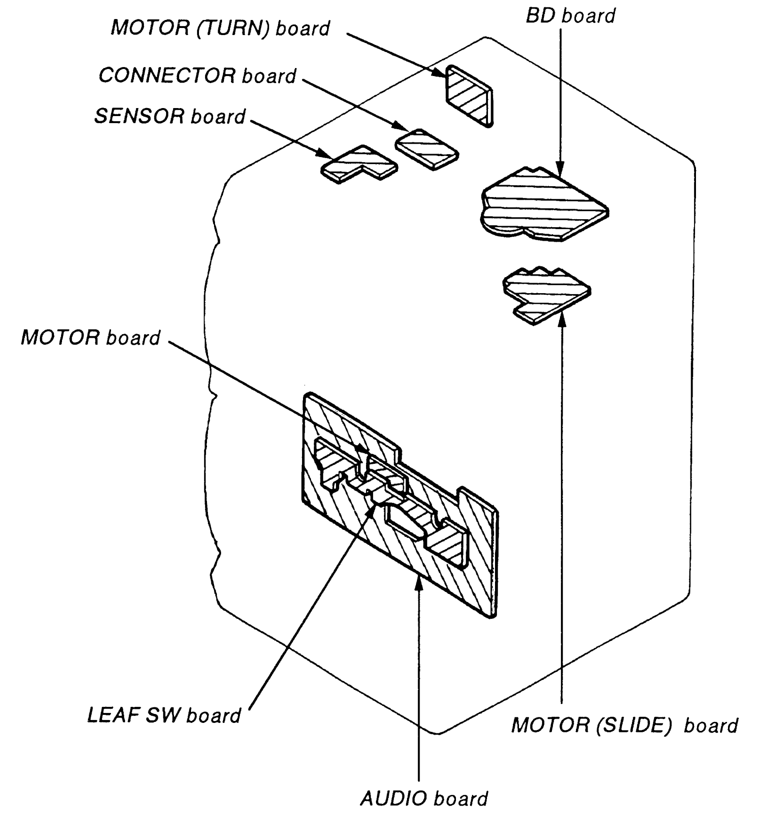


GEQ, BBFB, ELETRONIC VOLUME
IC901 (2/2)
5 BAND EQ
R-CH
CLK
DATA
LAT
BUFFER
IC808 (1/2)
SPEANNA AMP
IC902
DBFB HIGH Q901
DBFB Q902
MUTE Q945
MUTE DRIVE Q820
POWER AMP IC1201
POWER ON/OFF Q1210
J801-2
AUDIO OUT
OVER LOAD DET Q1251
EXCEPT AEP, G, IT, UK, C15, EE MODEL
OVER LOAD DET Q1241, 1242
Q1240
PROTECTOR IC1202
RELAY DRIVE
FF
OVER LOAD DET
DC OFFSET DET
AC OFFSET
Q1230
D1230
RY1201
RY1202
RY1203
FRONT RELAY DRIVE Q1271
REAR RELAY DRIVE Q1270
J670 PHONES
B+ (+36V)
TM1201 SPEAKER
TM1201 SURROUND SPEAKER
DIGITAL ECHO IC806
LPF
MAIN CONTROL CLOCK
OSCLLATOR
X801 32KHz
BUFFER IC808 (2/2)
DELAY ON/OFF Q805, 806
DELAY LEVEL A Q803, 804
DELAY LEVEL B Q801, 802
D802
D801
B·P·F
C530-532 R631, 653-655 D560
C533-535 R632, 656-658 D561
C536-538 R633, 659-661 D562
C539, 540 R634, 662, 663 D563
DISPLAY CONTROL IC500
SPEANNA 1
SPEANNA 2
SPEANNA 3
SPEANNA 4
RDY MD
REQ GM
CLK MD
DATA GM
DATA MD
RESET
SIRCS
VOL-A
VOL-B
JOG-A
JOG-B
SEG1-32
GR2-14
GR1
KEY1-4
LED1-15
LED51-53
X2
X1
X500 5MHz
FL801 FLUORESCENT INDICATOR TUBE
VF
Q520
KEY MATRIX
S500-515 S517, 519-545 S551-560
LED DRIVE Q511-519
S500-529 S531, 533 S535, 537 S539, 541 S543, 545 S547, 549 S531, 533 S555, 557
EXCEPT HCD-H8810
J1201 SURRER WOOFER
FAN MOTOR DRIVE Q1290, 1291
FAN MOTOR
D1291
D1290
B- (-13.8V)
EXCEPT AEP, G, IT, UK, C15, EE MODEL
T1601 POWER TRANSFORMER
RDS INT
RDS DATA
DELAY SEL MIC
ST CE
TUNED
STEREO
ST MUTE ON
DOLBY ON
DEREY LEVEL A
DEREY LEVEL B
MUTE
DBFB HIGH
POWER ON
FRONT SP RELAY B
REAR SP RELAY C
MD RDY
GM REQ
MD CLK
GM DATA
MD DATA
AC CUT
RESET
MASTER CONTROL IC701
RESET Q701
RESET IC702
IC501 REMOTE CONTROL RECEIVER
S561 VOLUME
MULTI CONTROL
S562 MULT JOG STATION
A HALF
B HALF
S1003 (A HALF)
S1005 (REC A)
S1006 (B HALF)
S1009 (REC B)
B+ (+5V)
220 A PLAY
220 B PLAY
S1001 (A PLAY)
S1002 (B PLAY)
CD POWER
X OUT
X IN
X701 10MHz
X702 32KHz
POWER AMP IC1201
B+ (+36V)
B- (-36V)
RECT D1250
AC OFFSET Q1231, 1232
B+ (+10V) (TCB BOARD)
+10V REG Q1003
RECT D1001, 1002
B+ (+7V) (BD BOARD)
B+ (+7V) (POWER, MAIN, TCB BOARD)
+7V REG IC1002
+7V REG IC1003
B+ (+5V) (MAIN BOARD)
+5V REG Q1016, 1017 D1021, 1022
B+ (+5V) (IC701)
B+ (+5V) (CONNECTOR, PANEL BOARD)
D704
D706
D705
+5V REG IC1001
D1023-1025
RECT D1003-1006
B+ (+5V) (CD BOARD)
CD B+ SWITCH Q1001, 1002
Q1018
B- (-7V) (COM)
-7V REG IC1004
B- (-13.8V) (FAN MOTOR)
B- (-25V) (VFDP)
-25V REG Q1006
AR, EA, SP, TW, JE, HK, IA, E MODEL
VS1601 VOLTAG SERECTOR
240V
120V
CNP1601 AC IN


J801-2
AUDIO OUT
R-CH
POWER AMP
IC1201
MUTE
Q945
POWER ON/OFF
Q1210
MUTE DRIVE
Q820
DBFB HIGH
Q901
DBFB
Q902
SPECTRUM ANALYZER
IC902
DELAY LEVEL B
Q801, 802
OVER LOAD DET
Q1251
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
OVER LOAD DET
Q1241, 1242
PROTECTOR
IC1202
RELAY DRIVE
FF
OVER LOAD DET
DC OFFSET DET
AC OFFSET
Q1230
Q1240
D1230
RY1201
RY1202
RY1203
FRONT RELAY DRIVE
Q1271
REAR RELAY DRIVE
Q1270
J670
PHONES
B+ (+36V)
TM1201
SPEAKER
SURROUND SPEAKER
EXCEPT HCD-H881D
J1201
SURROUND WOOFER
FAN MOTOR DRIVE
Q1290, 1291
FAN MOTOR
D1291
D1290
B- (-13.8V)
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
B.P.F
C530-532 R631, 653-655 Q560
C533-535 R632, 656-658 Q561
C536-538 R633, 659-661 Q562
C539, 540 R634, 662, 663 Q563
DISPLAY CONTROL
IC500
SPECTRUM 1
SPECTRUM 2
SPECTRUM 3
SPECTRUM 4
FL801
FLUORESCENT INDICATOR TUBE
VF
SEG1-32
GR2-14
GR1
Q520
KEY1-4
KEY MATRIX
S500-515 S517, 519-545 S551-560
MG RDY
GM REQ
MG CLK
GM DATA
MG DATA
RDY MG
REQ GM
CLK MG
DATA GM
DATA MG
RESET
IC501
REMOTE CONTROL RECEIVER
SIRCS
S561
VOLUME
MULTI CONTROL
VOL-A
VOL-B
S562
MULTI JOG STATION
JOG-A
JOG-B
LED1-15
LEDS1-53
LED DRIVE
Q511-519
S500-529 S531, 533 S535, 537 S539, 541 S543, 545 S547, 549 S551, 553 S555, 557
X2
X1
X500 5MHz
T1601
POWER TRANSFORMER
POWER AMP
IC1201
B+ (+36V)
B- (-36V)
RECT
D1250
AC OFFSET
D1231, 1232
B+ (+10V) (TCB BOARD)
+10V REG
Q1003
RECT
D1001, 1002
B+ (+7V) (BD BOARD)
+7V REG
IC1002
B+ (+7V) (POWER, MAIN, TCB BOARD)
B+ (+5V) (MAIN BOARD)
+5V REG
D1016, 1017
Q1021, 1022
+7V REG
IC1003
B+ (+5V) (IC701)
B+ (+5V) (CONNECTOR, PANEL BOARD)
D704
D706
D705
+5V REG
IC1001
D1023-1025
RECT
D1003-1006
B+ (+5V) (CD BOARD)
CD B+ SWITCH
Q1001, 1002
D1018
B- (-7V) (CDM)
-7V REG
IC1004
B- (-13.8V) (FAN MOTOR)
B- (-25V) (VFDP)
-25V REG
Q1006
AR, EA, SP, TW, JE, HK, IA, E MODEL
VS1601
VOLTAGE SELECTOR
240V
120V
CNP1601
AC IN

6-4. CIRCUIT BOARD LOCATION


POLAR board (CIS only)
TCB board
MAIN board
TRANS board
CD-SW board
PANEL board
JOG board
POWER board
HP/MIC board
TC-SW board


MOTOR (TURN) board
BD board
CONNECTOR board
SENSOR board
MOTOR board
LEAF SW board
MOTOR (SLIDE) board
AUDIO board

• SEMICONDUCTOR LOCATION

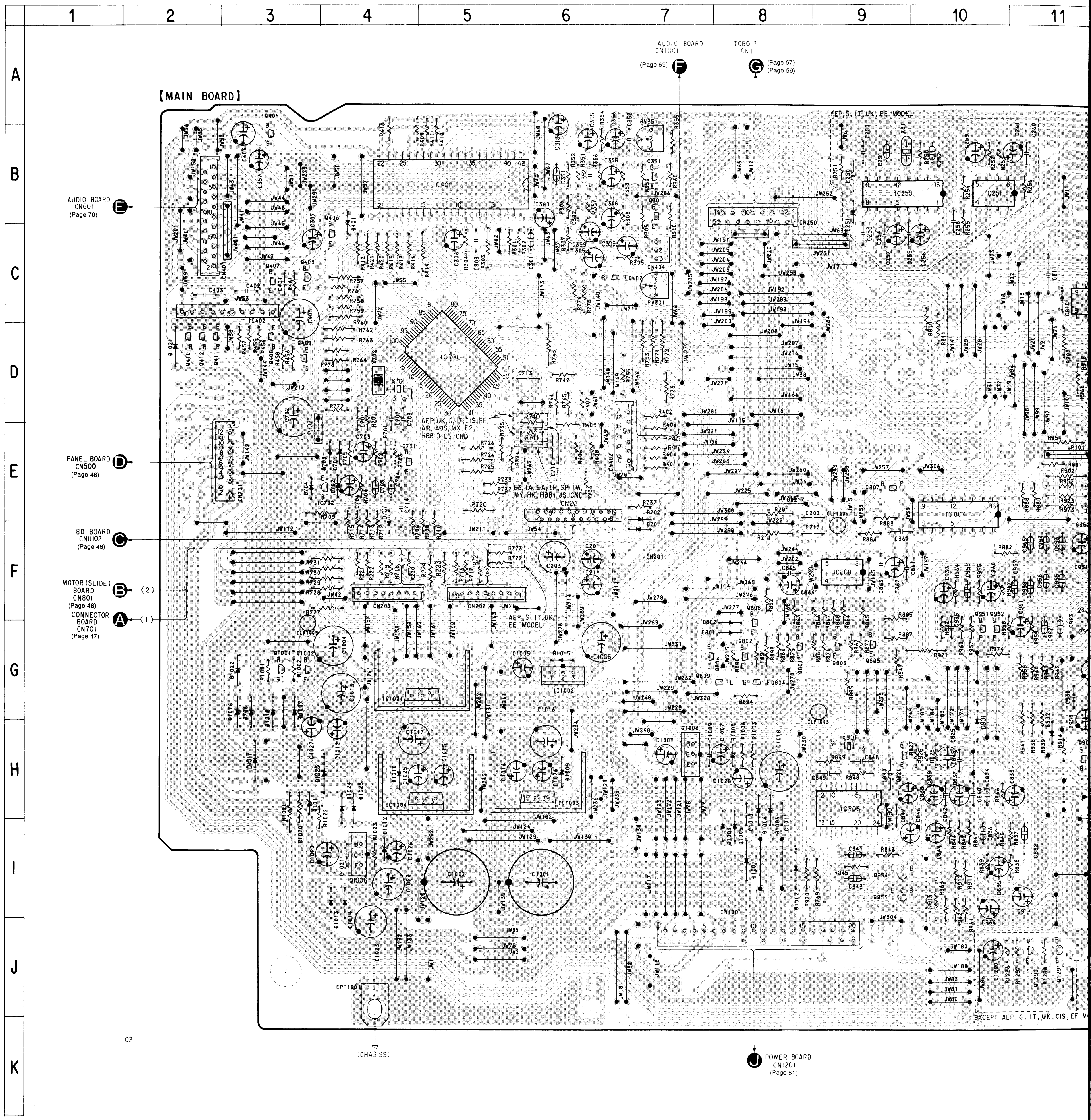
Ref. No.	Location
D201	F - 7
D202	E - 7
D251	B - 9
D401	B - 4
D701	E - 4
D702	E - 4
D703	E - 4
D704	E - 3
D705	E - 4
D706	G - 3
D707	E - 4
D801	G - 8
D802	G - 8
D901	G - 10
D902	H - 11
D1001	I - 8
D1002	I - 8
D1003	I - 8
D1004	H - 8
D1006	H - 8
D1007	G - 3
D1008	H - 8
D1009	H - 6
D1010	H - 4
D1011	H - 3
D1012	I - 4
D1013	I - 3
D1014	I - 3
D1016	G - 3
D1017	H - 3
D1018	G - 3
D1021	D - 2
D1022	G - 3
D1023	H - 4
D1024	H - 4
D1025	H - 4
IC201	B - 13
IC250	B - 9
IC251	B - 10
IC401	B - 5
IC402	C - 3
IC701	D - 5
IC802	C - 12
IC806	H - 9
IC807	E - 10
IC808	F - 9
IC901	F - 12
IC902	H - 12
IC1001	G - 4
IC1002	G - 6
IC1003	H - 6
IC1004	H - 4
Q301	B - 7
Q351	B - 7
Q401	B - 3
Q402	C - 6
Q403	C - 3
Q406	C - 4
Q407	C - 3
Q408	D - 3
Q409	D - 3
Q410	D - 2
Q411	D - 2
Q412	D - 2
Q701	E - 4
Q801	G - 8
Q802	G - 8
Q803	G - 9
Q804	G - 8
Q805	G - 9
Q806	G - 7
Q807	E - 9
Q808	F - 8
Q809	G - 8
Q820	H - 9
Q901	H - 12
Q902	H - 11
Q951	G - 10
Q952	G - 10
Q953	I - 9
Q954	I - 9
Q1001	G - 3
Q1002	G - 3
Q1003	H - 7
Q1006	I - 4
Q1290	J - 11
Q1291	J - 11

Note:

- ○— : parts extracted from the component side.
- ░░░ : Pattern on the side which is seen.
- Abbreviation

CND	Canadian	HK	Hong Kong
AUS	Australian	JE	Tourist
AR	Argentine	IA	Indonesia
MX	Mexican	G	German
TH	Thailand	IT	Italian
EA	Saudi Arabia	EE	East European
MY	Malaysia	TW	Taiwan
SP	Singapore		

6-5. PRINTED WIRING BOARDS – MAIN SECTION –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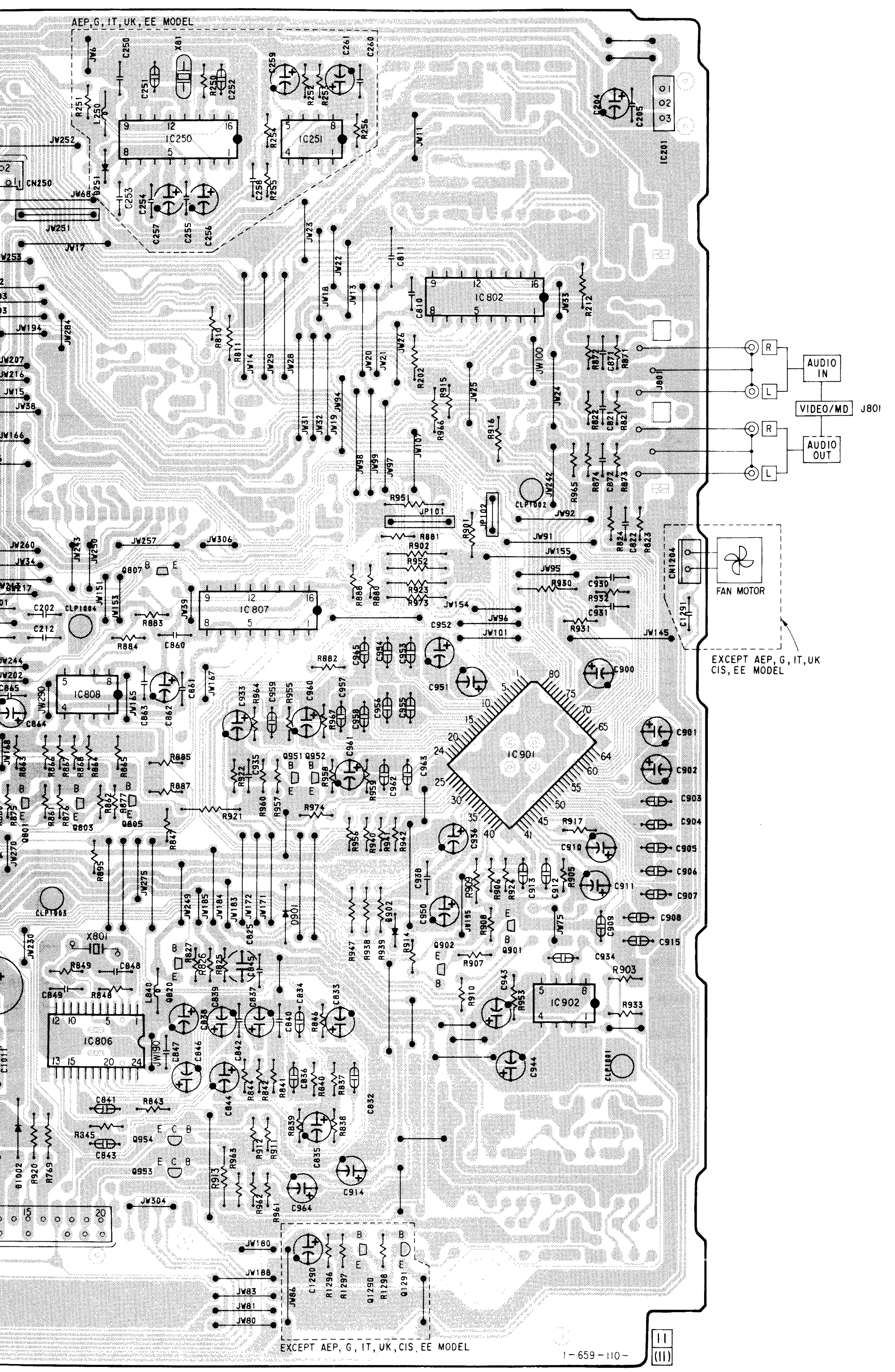
11
A
B
C
D
E
F
G
H
I
J
K
[MAIN BOARD]
AUDIO BOARD CN1001 (Page 69) F
TCB017 CN1 G (Page 57) (Page 59)
AUDIO BOARD CN601 (Page 70) E
PANEL BOARD CN500 (Page 46) D
BD BOARD CNU102 (Page 48) C
MOTOR (SLIDE) BOARD CN801 (Page 48) B
CONNECTOR BOARD CN701 (Page 47) A
IC401
IC701
IC402
IC250
IC251
IC807
IC808
IC806
IC1001
IC1002
IC1003
IC1004
CN1001
CN201
CN202
CN203
CN250
CN402
AEP, G, IT, UK, EE MODEL
AEP, UK, G, IT, CIS, EE, AR, AUS, MX, E2, H881D: US, CND
E3, IA, EA, TH, SP, TW, MY, HK, H881: US, CND
EXCEPT AEP, G, IT, UK, CIS, EE M
EPT1001
(CHASSIS)
POWER BOARD CN1201 (Page 61) J
02

e 57)
e 59)

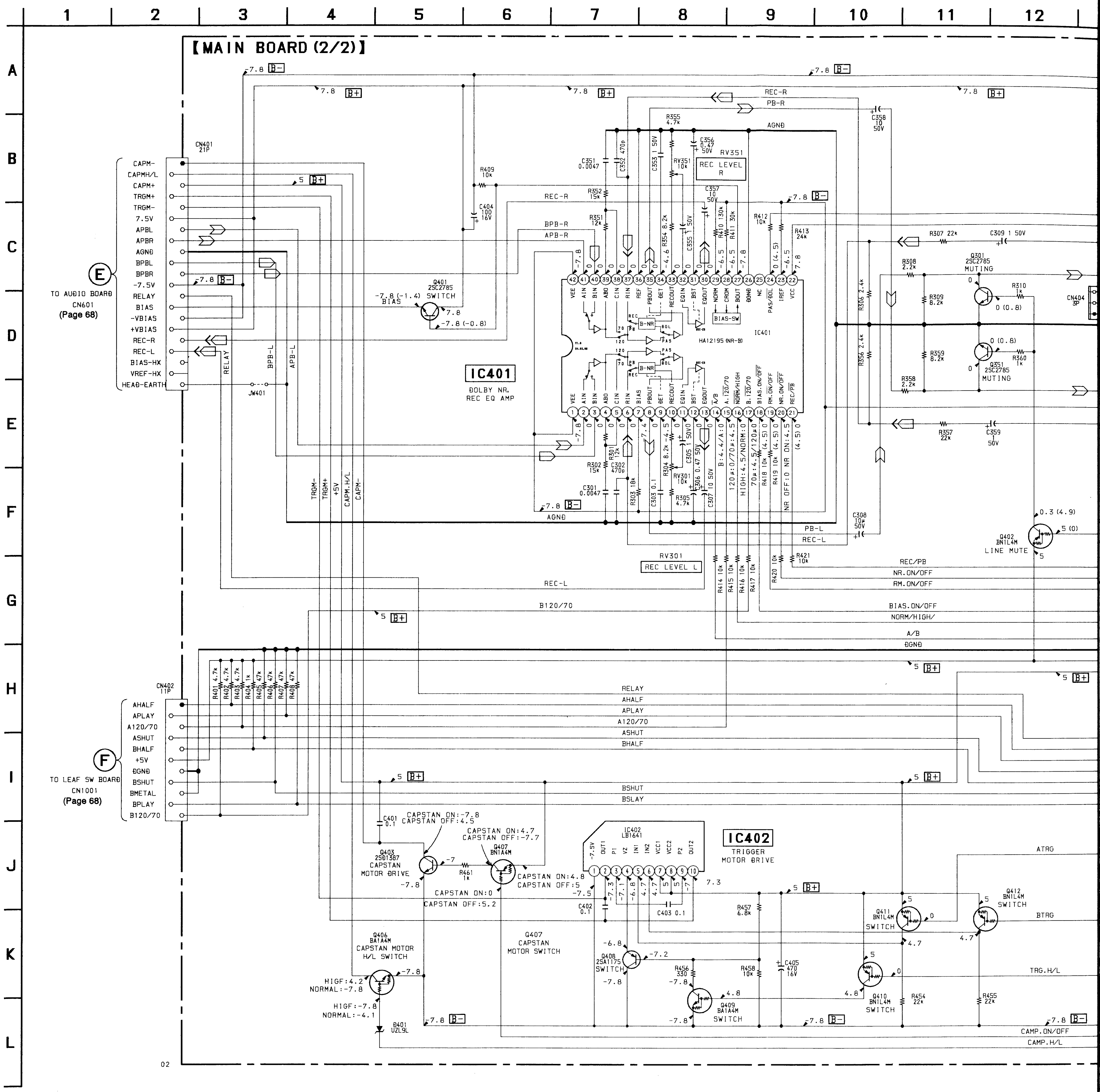


9
10
11
12
13
14
AEP,G,IT,UK,EE MODEL
IC250
IC251
IC802
IC807
IC808
IC806
IC901
IC902
AUDIO IN
VIDEO/MD
AUDIO OUT
J801
FAN MOTOR
EXCEPT AEP,G,IT,UK CIS,EE MODEL
EXCEPT AEP,G,IT,UK,CIS,EE MODEL
1-659-110-
11 (11)

R BOARD
2C1
e 61)

6-6. SCHEMATIC DIAGRAM – MAIN SECTION (2/2) –

- Refer to page 41 for note.
- Refer to page 73 for IC Block Diagrams.



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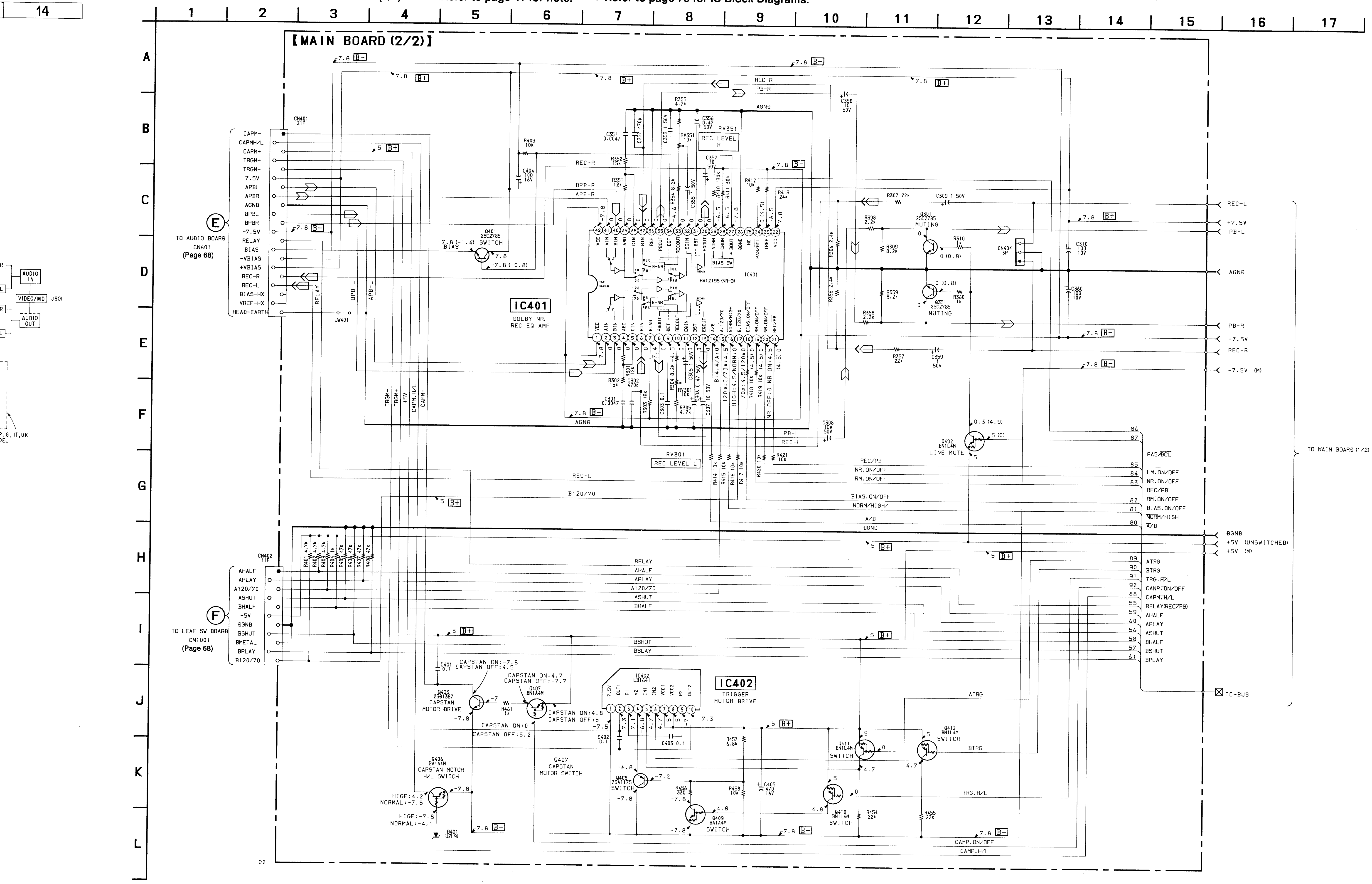
K
L
【MAIN BOARD (2/2)】
CN401 21P
CAPM-
CAPMH/L
CAPM+
TRGM+
TRGM-
7.5V
APBL
APBR
AGND
BPBL
BPBR
-7.5V
RELAY
BIAS
-VBIAS
+VBIAS
REC-R
REC-L
BIAS-HX
VREF-HX
HEAD-EARTH
E
TO AUDIO BOARD CN601 (Page 68)
IC401
DOLBY NR. REC EQ AMP
HA12195 (NR-B)
Q401 2SC2785 SWITCH
RV351 REC LEVEL R
RV301 REC LEVEL L
Q301 2SC2785 MUTING
Q351 2SC2785 MUTING
Q402 BN1L4M LINE MUTE
CN404
CN402 11P
AHALF
APLAY
A120/70
ASHUT
BHALF
+5V
DGND
BSHUT
BMETAL
BPLAY
B120/70
F
TO LEAF SW BOARD CN1001 (Page 68)
IC402
LB1641
TRIGGER MOTOR DRIVE
Q403 2SD1587 CAPSTAN MOTOR DRIVE
Q407 BN1A4M
CAPSTAN ON:-7.8 CAPSTAN OFF:4.5
CAPSTAN ON:4.7 CAPSTAN OFF:-7.7
CAPSTAN ON:4.8 CAPSTAN OFF:5
CAPSTAN ON:0 CAPSTAN OFF:5.2
Q406 BA1A4M CAPSTAN MOTOR H/L SWITCH
Q407 CAPSTAN MOTOR SWITCH
Q408 2SA1175 SWITCH
Q409 BA1A4M SWITCH
Q410 BN1L4M SWITCH
Q411 BN1L4M SWITCH
Q412 BN1L4M SWITCH
D401 UZL9L
HIGF:4.2 NORMAL:-7.8
HIGF:-7.8 NORMAL:-4.1
REC-R
PB-R
REC-L
PB-L
AGND
REC/PB
NR.ON/OFF
RM.ON/OFF
BIAS.ON/OFF
NORM/HIGH/
A/B
DGND
B120/70
RELAY
BSHUT
BSLAY
ATRG
BTRG
TRG.H/L
CAMP.ON/OFF
CAMP.H/L
02

6-6. SCHEMATIC DIAGRAM – MAIN SECTION (2/2) –

- Refer to page 41 for note.
- Refer to page 73 for IC Block Diagrams.



14
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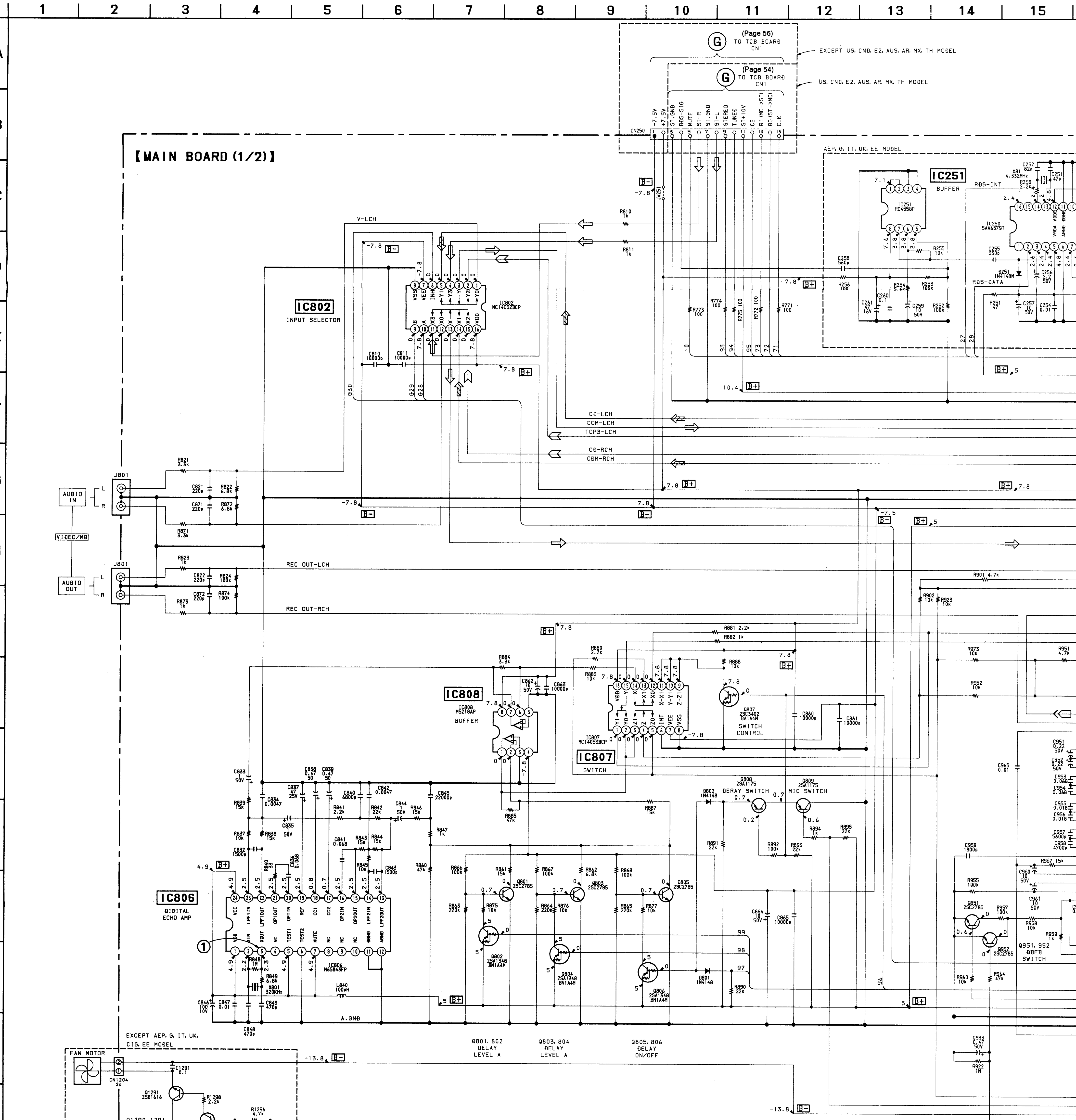
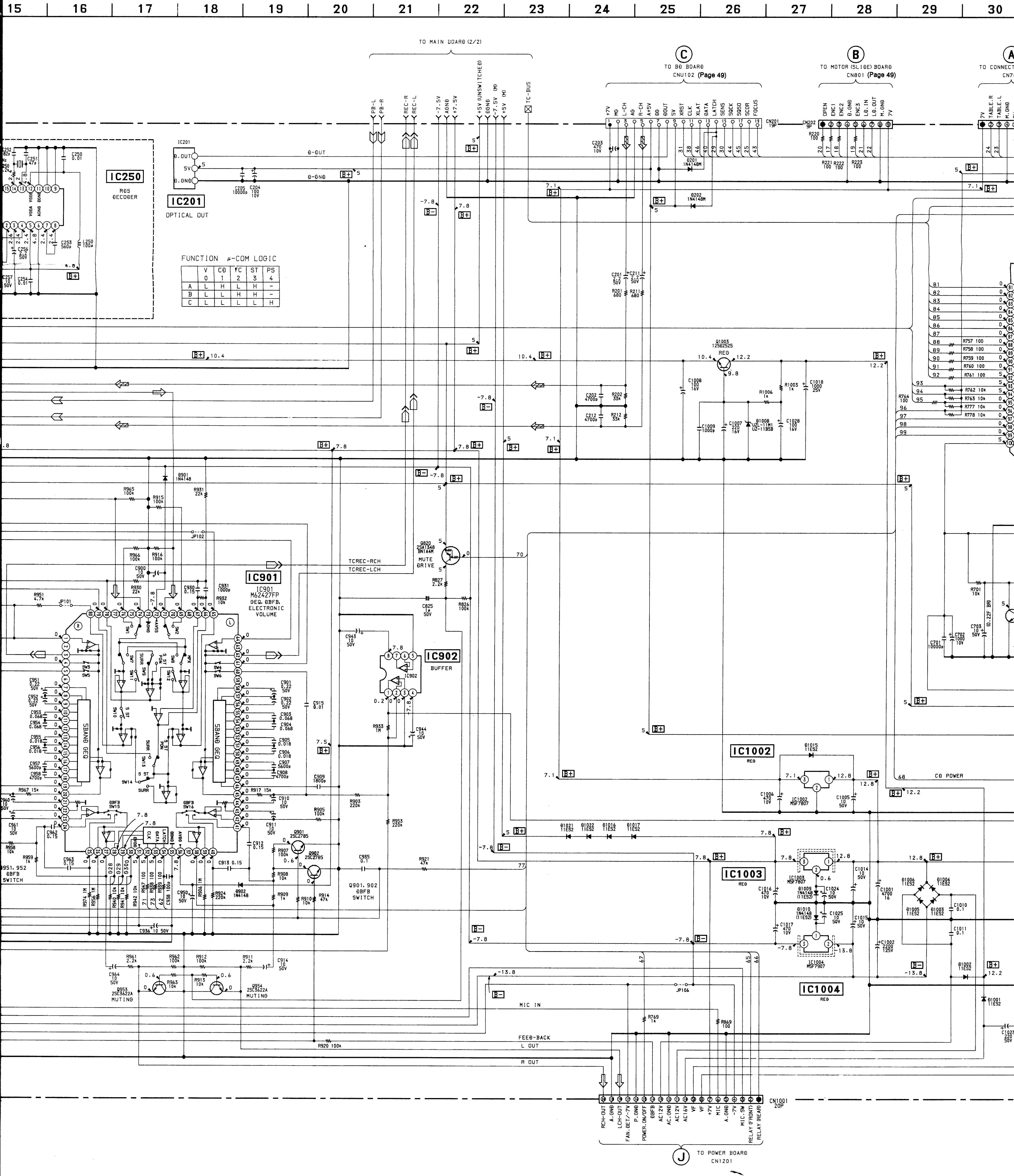
A
B
C
D
E
F
G
H
I
J
K
L
【MAIN BOARD (2/2)】
E
TO AUDIO BOARD
CN601
(Page 68)
CN401
21P
CAPM-
CAPMH/L
CAPM+
TRGM+
TRGM-
7.5V
APBL
APBR
AGND
BPBL
BPBR
-7.5V
RELAY
BIAS
-VBIAS
+VBIAS
REC-R
REC-L
BIAS-HX
VREF-HX
HEAD-EARTH
JW401
RELAY
BPB-L
APB-L
Q401
2SC2785
SWITCH
BIAS
R409
10k
C404
100
16V
REC-R
BPB-R
APB-R
R352
15k
R351
12k
C351
0.0047
C352 470p
C353 1 50V
R355
4.7k
C356
0.47
50V
RV351
10k
RV351
REC LEVEL
R
C357
10
50V
R354 8.2k
C355 1 50V
R410 130k
R411 30k
R412
10k
R413
24k
AGND
REC-R
PB-R
C358
10
50V
IC401
BOLBY NR,
REC EQ AMP
HA12195 (NR-B)
B-NR
BIAS-SW
VEE
AIN
BIN
ABO
CIN
RIN
REF
PBOUT
BET
RECOUT
EQIN
BST
EQOUT
NORM
CROM
BOUT
BGND
NC
PAS/DOL
IREF
VCC
A/B
A.120/70
NORM/HIGH
B.120/70
BIAS.ON/OFF
RM.ON/OFF
NR.ON/OFF
REC/PB
R302
15k
C302
470p
R301
12k
C301
0.0047
R303 18k
C303 0.1
R304 8.2k
RV301
10k
C305 1
C306 0.47 50V
C307 10 50V
R305
4.7k
B:4.4/A:0
120μ:0/70μ:4.5
HIGH:4.5/NORM:0
70μ:4.5/120μ:0
R418 10k
R419 10k
NR OFF:0 NR ON:4.5
AGND
PB-L
REC-L
RV301
REC LEVEL L
R414 10k
R415 10k
R416 10k
R417 10k
R420 10k
R421
10k
C308
10
50V
R306 2.4k
R356 2.4k
R307 22k
C309 1 50V
R308
2.2k
Q301
2SC2785
MUTING
R309
8.2k
R310
1k
R359
8.2k
R360
1k
Q351
2SC2785
MUTING
R358
2.2k
R357
22k
C359
1
50V
CN404
3P
C310
100
10V
C360
100
10V
REC-L
+7.5V
PB-L
AGND
PB-R
-7.5V
REC-R
-7.5V (M)
TO MAIN BOARD (1/2)
Q402
BN1L4M
LINE MUTE
PAS/DOL
LM.ON/OFF
NR.ON/OFF
REC/PB
RM.ON/OFF
BIAS.ON/OFF
NORM/HIGH
A/B
BGND
+5V (UNSWITCHED)
+5V (M)
REC/PB
NR.ON/OFF
RM.ON/OFF
BIAS.ON/OFF
NORM/HIGH/
A/B
BGND
REC-L
B120/70
TRGM-
TRGM+
+5V
CAPM.H/L
CAPM-
F
TO LEAF SW BOARD
CN1001
(Page 68)
CN402
11P
AHALF
APLAY
A120/70
ASHUT
BHALF
+5V
BGND
BSHUT
BMETAL
BPLAY
B120/70
R401 4.7k
R402 4.7k
R403 4.7k
R404 1k
R405 47k
R406 47k
R407 47k
R408 47k
RELAY
AHALF
APLAY
A120/70
ASHUT
BHALF
BSHUT
BSLAY
ATRG
BTRG
TRG.H/L
CAMP.ON/OFF
CAPM.H/L
RELAY(REC/PB)
AHALF
APLAY
ASHUT
BHALF
BSHUT
BPLAY
TC-BUS
C401
0.1
CAPSTAN ON:-7.8
CAPSTAN OFF:4.5
CAPSTAN ON:4.7
CAPSTAN OFF:-7.7
Q403
2SD1387
CAPSTAN
MOTOR DRIVE
Q407
BN1A4M
R461
1k
CAPSTAN ON:4.8
CAPSTAN OFF:5
CAPSTAN ON:0
CAPSTAN OFF:5.2
IC402
LB1641
-7.5V
OUT1
P1
VZ
IN1
IN2
VCC1
VCC2
P2
OUT2
IC402
TRIGGER
MOTOR DRIVE
C402
0.1
C403 0.1
R457
6.8k
Q411
BN1L4M
SWITCH
Q412
BN1L4M
SWITCH
BTRG
ATRG
Q406
BA1A4M
CAPSTAN MOTOR
H/L SWITCH
HIGF:4.2
NORMAL:-7.8
HIGF:-7.8
NORMAL:-4.1
D401
UZL9L
Q407
CAPSTAN
MOTOR SWITCH
Q408
2SA1175
SWITCH
R456
330
Q409
BA1A4M
SWITCH
R458
10k
C405
470
16V
Q410
BN1L4M
SWITCH
R454
22k
R455
22k
TRG.H/L
CAMP.ON/OFF
CAMP.H/L
02

6-7. SCHEMATIC DIAGRAM – MAIN SECTION (1/2) –

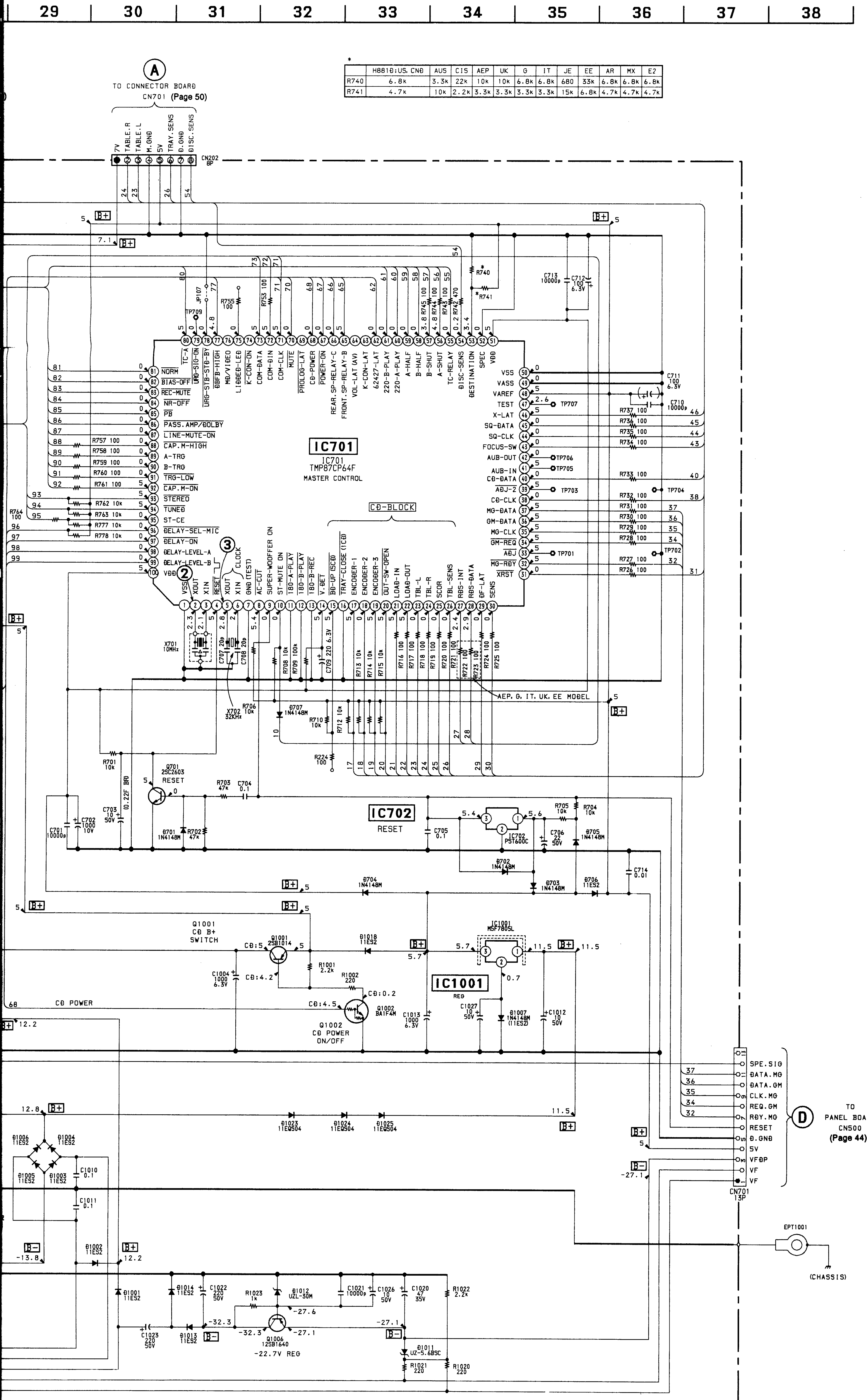
• Refer to page 73 for IC Block Diagrams.


【MAIN BOARD (1/2)】
(Page 56) TO TCB BOARD CN1
EXCEPT US, CND, E2, AUS, AR, MX, TH MODEL
(Page 54) TO TCB BOARD CN1
US, CND, E2, AUS, AR, MX, TH MODEL
CN250
-7.5V
+7.5V
ST.GND
RDS-SIG
MUTE
ST-R
ST.GND
ST-L
STEREO
TUNED
ST+10V
CE
DI (MC->ST)
DO (ST->MC)
CLK
AEP, G, IT, UK, EE MODEL
IC251 BUFFER
IC251 RC4558P
IC250 SAA6579T
X81 4.332MHz
RDS-INT
RDS-DATA
D251 1N4148M
IC802 INPUT SELECTOR
IC802 MC14052BCP
V-LCH
CD-LCH
COM-LCH
TCPB-LCH
CD-RCH
COM-RCH
J801
AUDIO IN
VIDEO/MD
AUDIO OUT
REC OUT-LCH
REC OUT-RCH
IC808 BUFFER
IC808 M5218AP
IC807 SWITCH
IC807 MC14053BCP
Q807 2SC3402 BA1A4M SWITCH CONTROL
Q808 2SA1175 DERAY SWITCH
Q809 2SA1175 MIC SWITCH
D802 1N4148
D801 1N4148
IC806 DIGITAL ECHO AMP
IC806 M65843FP
X801 320KHz
L840 100μH
A.GND
Q801 2SC2785
Q802 2SA1348 BN1A4M
Q803 2SC2785
Q804 2SA1348 BN1A4M
Q805 2SC2785
Q806 2SA1348 BN1A4M
Q801, 802 DELAY LEVEL A
Q803, 804 DELAY LEVEL A
Q805, 806 DELAY ON/OFF
Q951 2SC2785
Q952 2SC2785
Q951, 952 DBFB SWITCH
FAN MOTOR
CN1204 2P
Q1291 2SD1616
Q1290 2SA1175
Q1290, 1291 FAN MOTOR DRIVE
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
-13.8
02


15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
TO MAIN BOARD (2/2)
PB-L
PB-R
REC-R
REC-L
-7.5V
AGND
+7.5V
+5V (UNSWITCHED)
DGND
-7.5V (M)
+5V (M)
TC-BUS
C
TO BD BOARD
CNU102 (Page 49)
+7V
MG
L-CH
AG
R-CH
A+5V
DG
DOUT
5V
XRST
CLK
XLAT
DATA
LATCH
SENS
SQCK
SQSO
SCOR
FOCUS
CN201
19P
B
TO MOTOR (SLIDE) BOARD
CN801 (Page 49)
OPEN
ENC1
ENC2
D.GND
ENC3
LD.IN
LD.OUT
M.GND
7V
CN202
9P
TO CONNECT
7V
TABLE.R
TABLE.L
M.GND
IC250
RDS
DECODER
IC201
OPTICAL OUT
D-OUT
D-GND
IC901
IC901
M62427FP
GEQ, DBFB,
ELECTRONIC
VOLUME
5BAND GEQ
5BAND GEQ
TCREC-RCH
TCREC-LCH
Q820
2SA1348
BN1A4M
MUTE
DRIVE
IC902
BUFFER
Q901,902
DBFB
SWITCH
Q951,952
DBFB
SWITCH
Q953
2SC3622A
MUTING
Q954
2SC3622A
MUTING
Q1003
2SD2525
REG
IC1002
REG
IC1002
M5F7807
IC1003
REG
IC1003
M5F7807
IC1004
REG
IC1004
M5F7907
CD POWER
MIC IN
FEED-BACK
L OUT
R OUT
RCH-OUT
A.GND
LCH-OUT
FAN.DET/-7V
P.GND
POWER.ON/OFF
DBFB
AC12V
AC.GND
AC12V
AC16V
VF
VF
+7V
MIC
A.GND
-7V
MIC.SW
RELAY (FRONT)
RELAY (REAR)
CN1001
20P
J
TO POWER BOARD
CN1201

FUNCTION μ-COM LOGIC

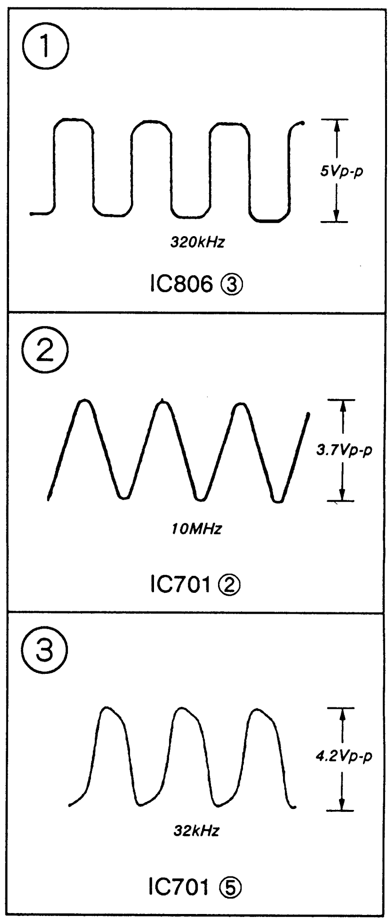
	V 0	CD 1	TC 2	ST 3	PS 4
A	L	H	L	H	-
B	L	L	H	H	-
C	L	L	L	L	H


29
30
31
32
33
34
35
36
37
38
A
TO CONNECTOR BOARD
CN701 (Page 50)
7V
TABLE.R
TABLE.L
M.GND
5V
TRAY SENS
D.GND
DISC.SENS
CN202 8P
IC701
IC701
TMP87CP64F
MASTER CONTROL
CD-BLOCK
NORM
BIAS-OFF
REC-MUTE
NR-OFF
PB
PASS.AMP/DOLBY
LINE-MUTE-ON
CAP.M-HIGH
A-TRG
B-TRG
TRG-LOW
CAP.M-ON
STEREO
TUNED
ST-CE
DELAY-SEL-MIC
DELAY-ON
DELAY-LEVEL-A
DELAY-LEVEL-B
VDD
VSS
VASS
VAREF
TEST
X-LAT
SQ-DATA
SQ-CLK
FOCUS-SW
AUB-OUT
AUB-IN
CD-DATA
ADJ-2
CD-CLK
MG-DATA
GM-DATA
MG-CLK
GM-REQ
ADJ
MG-RDY
XRST
X701 10MHz
X702 32KHz
AEP, G, IT, UK, EE MODEL
Q701 2SC2603 RESET
IC702
RESET
IC702 PST600C
Q1001 CD B+ SWITCH
Q1001 2SB1014
Q1002 CD POWER ON/OFF
IC1001
IC1001 MSF7805L
REG
CD POWER
Q1006 12SB1640
-22.7V REG
SPE.SIG
DATA.MG
DATA.GM
CLK.MG
REQ.GM
RDY.MG
RESET
D.GND
5V
VFDP
VF
VF
CN701 13P
D
TO PANEL BOARD CN500 (Page 44)
EPT1001
(CHASSIS)
TP707
TP706
TP705
TP703
TP704
TP701
TP702
TP709
JP107

*

	H881D:US, CND	AUS	CIS	AEP	UK	G	IT	JE	EE	AR	MX	E2
R740	6.8k	3.3k	22k	10k	10k	6.8k	6.8k	680	33k	6.8k	6.8k	6.8k
R741	4.7k	10k	2.2k	3.3k	3.3k	3.3k	3.3k	15k	6.8k	4.7k	4.7k	4.7k

• WAVEFORMS – MAIN SECTION –



Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

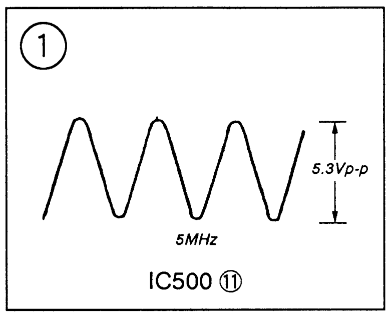
- B+ : B+ Line
- B – : B – Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.

⇨	: FM	⊐	: PB (DECK A)
⇨	: CD	▷	: PB (DECK B)
		▷	: REC (DECK B)

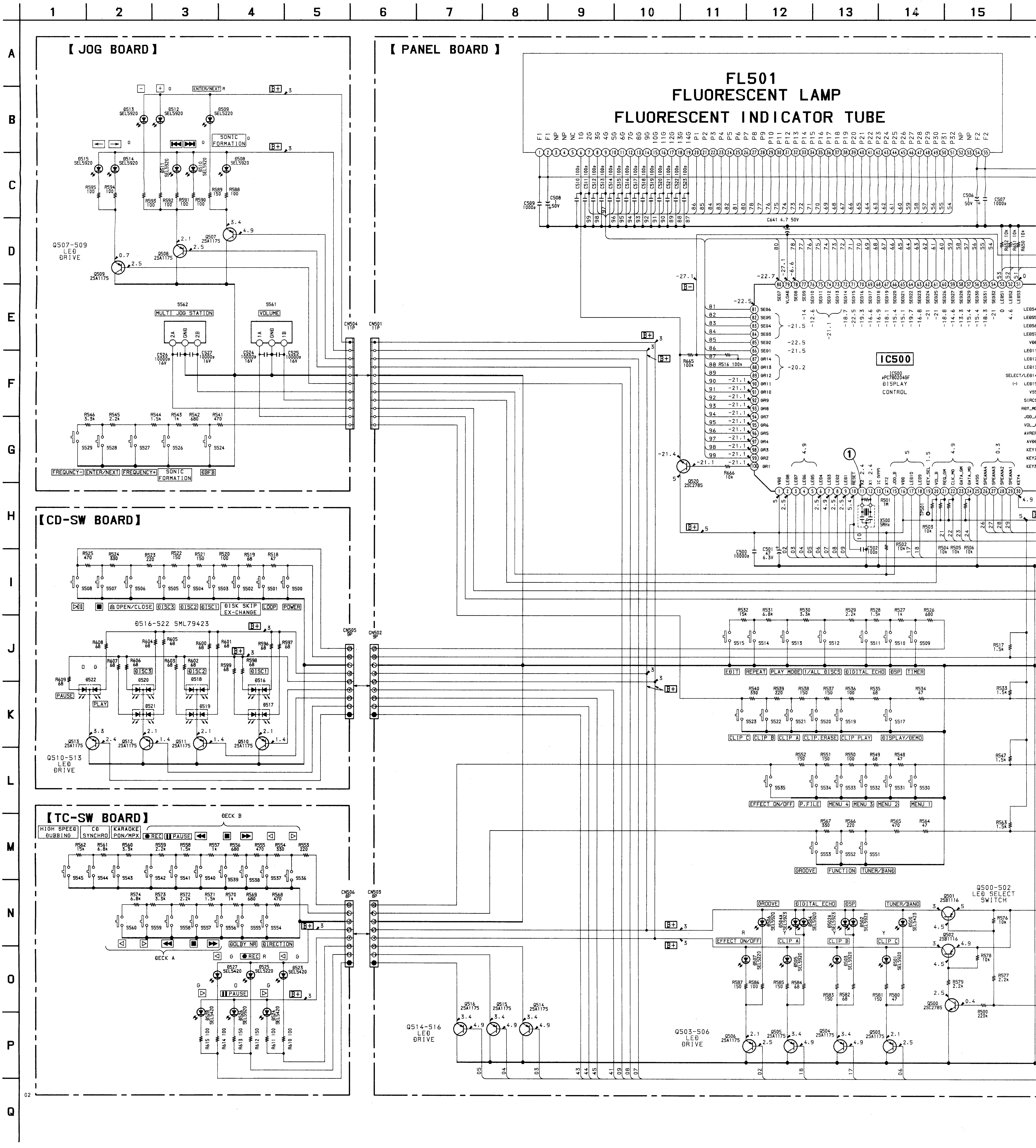
- Abbreviation

CND	: Canadian	HK	: Hong Kong
AUS	: Australian	JE	: Tourist
AR	: Argentine	IA	: Indonesia
MX	: Mexican	G	: German
TH	: Thailand	IT	: Italian
EA	: Saudi Arabia	EE	: East European
MY	: Malaysia	TW	: Taiwan
SP	: Singapore		

• WAVEFORMS – PANEL SECTION –

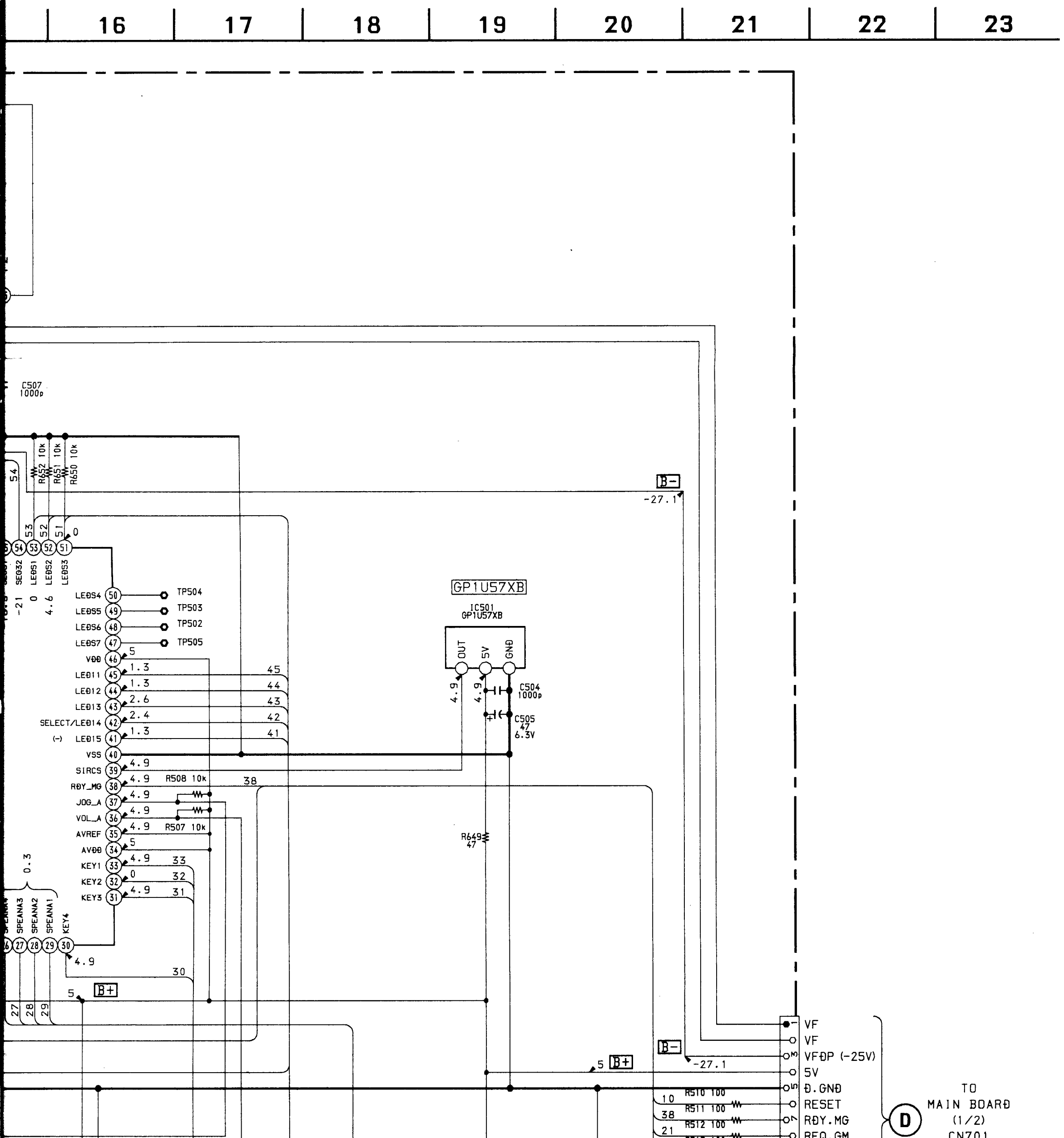


6-8. SCHEMATIC DIAGRAM – PANEL SECTION –

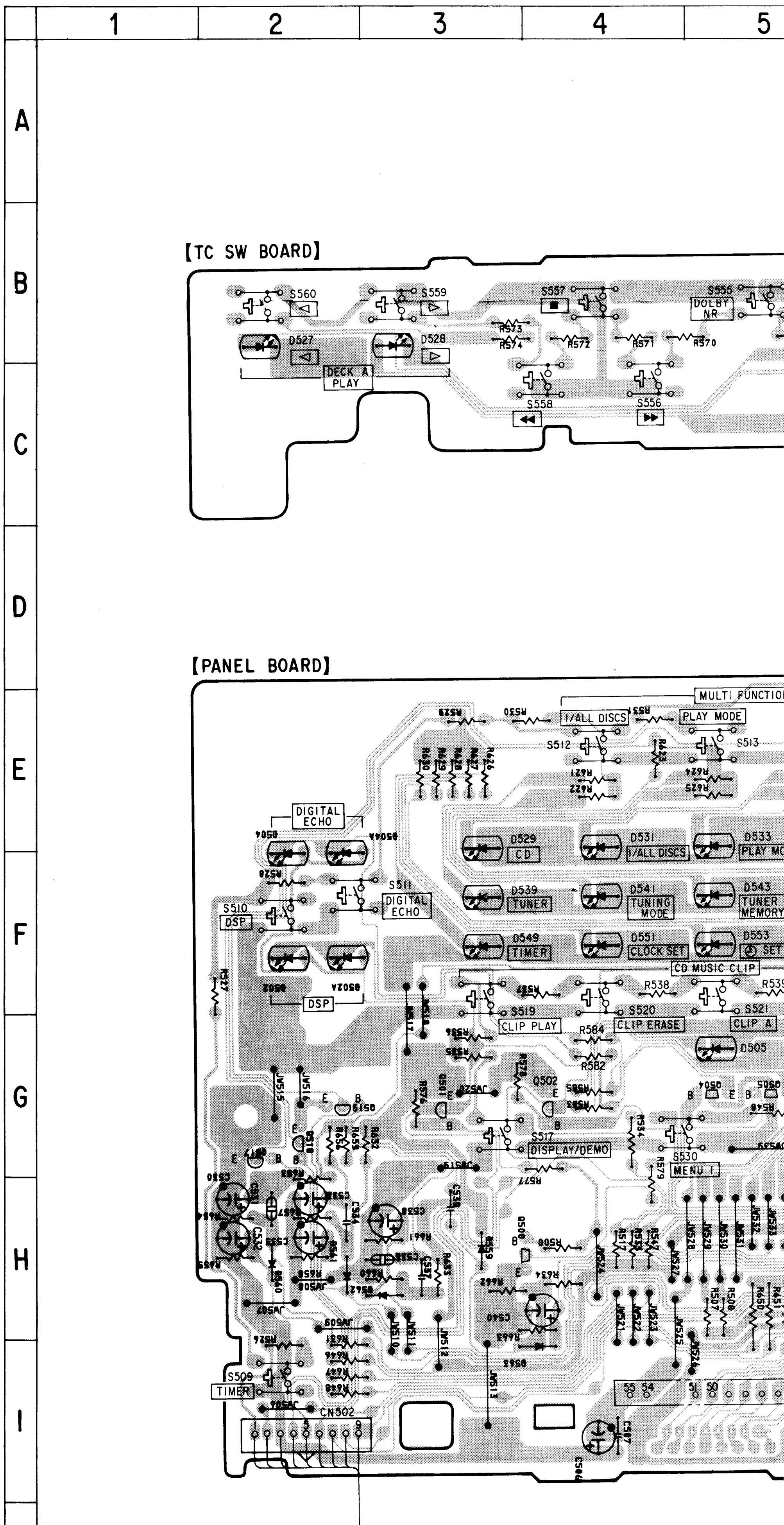

【JOG BOARD】
【PANEL BOARD】
【CD-SW BOARD】
【TC-SW BOARD】
FL501
FLUORESCENT LAMP
FLUORESCENT INDICATOR TUBE
IC500
IC500 μPC7802046F DISPLAY CONTROL
Q507-509 LED DRIVE
Q510-513 LED DRIVE
Q514-516 LED DRIVE
Q503-506 LED DRIVE
Q500-502 LED SELECT SWITCH
S562 MULTI JOG STATION
S561 VOLUME
D516-522 SML79423
DECK A
DECK B
CN504 11P
CN501 11P
CN505 8P
CN502 8P
CN506 8P
CN503 8P
X500 5MHz
FREQUNCY-
ENTER/NEXT
FREQUENCY+
SONIC FORMATION
DBFB
OPEN/CLOSE
DISC3
DISC2
DISC1
DISK SKIP EX-CHANGE
LOOP
POWER
PAUSE
PLAY
HIGH SPEED DUBBING
CD SYNCHRO
KARAOKE PON/MPX
REC
BOLBY NR
DIRECTION
EDIT
REPEAT
PLAY MODE
1/ALL DISCS
DIGITAL ECHO
DSP
TIMER
CLIP C
CLIP B
CLIP A
CLIP ERASE
CLIP PLAY
DISPLAY/DEMO
EFFECT ON/OFF
P.FILE
MENU 4
MENU 3
MENU 2
MENU 1
GROOVE
FUNCTION
TUNER/BAND
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q

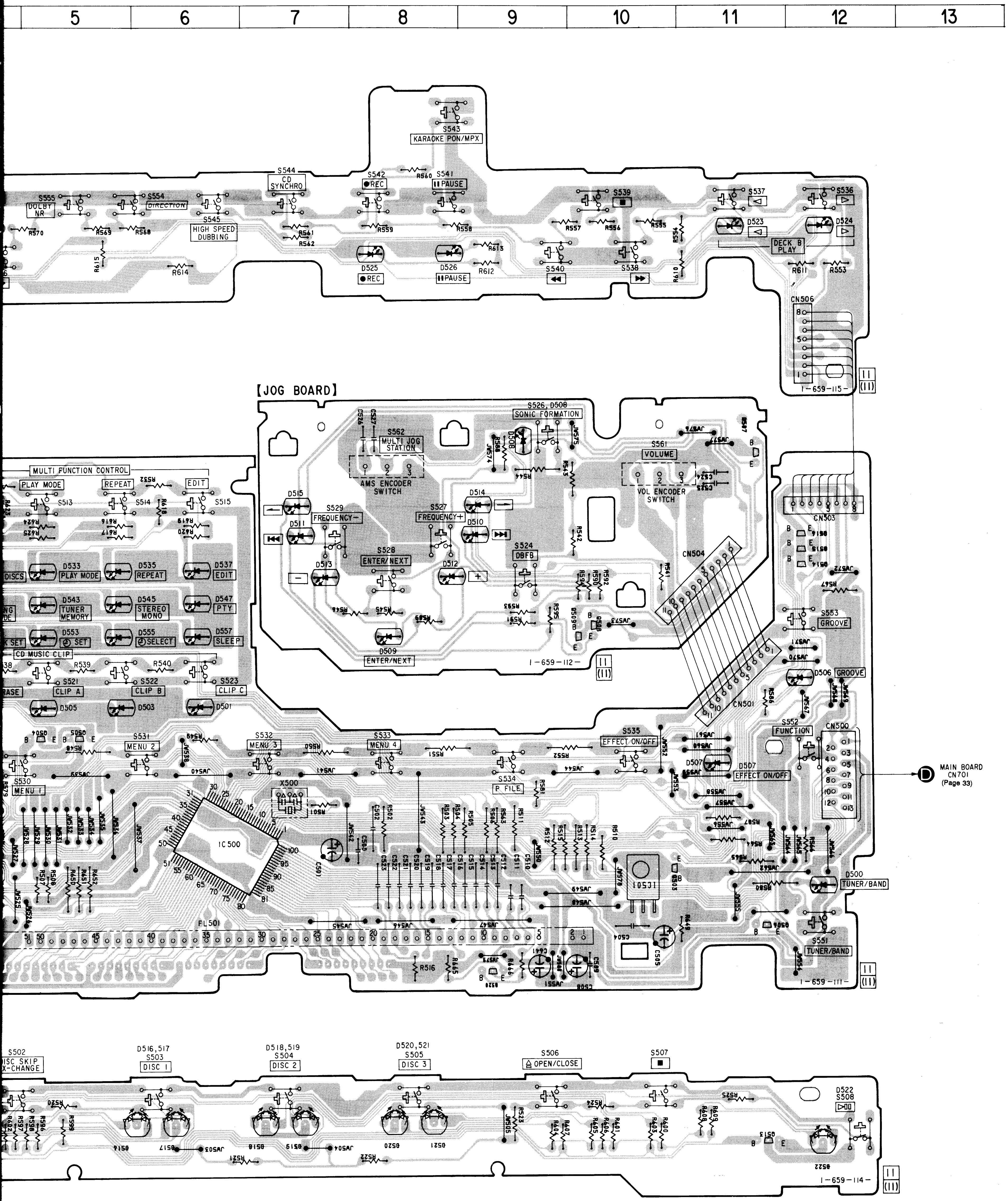
Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- **B+** : B+ Line
- **B −** : B − Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.


16
17
18
19
20
21
22
23
GP1U57XB
IC501 GP1U57XB
OUT
5V
GND
C504 1000p
C505 47 6.3V
R649 47
TP504
TP503
TP502
TP505
R508 10k
R507 10k
B−
-27.1
B+
VF
VF
VFØP (-25V)
5V
D.GND
RESET
RDY.MG
REQ.GM
CLK.MG
DATA.GM
DATA.MG
SPA.SIG
CN500 15P
TO MAIN BOARD (1/2) CN701 (Page 40)
D
LOW
HIGH
MULTI-TIMER
MULTI-TUNER
MULTI-CD
D557 SLEEP
D555 SELECT
D553 SET
D551 CLOCK SET
D549 TIMER
D547 PTY
D545 STEREO/MONO
D543 TUNER MEMORY
D541 TUNING MODE
D539 TUNER
D537 EDIT
D535 REPEAT
D533 PLAY MODE
D531 1/ALL DISCS
D529 CD
Q519 2SB1616
Q518 2SB1616
Q517 2SB1616
Q517-519 LED DRIVE
S500-502 SELECT SWITCH

6-9. PRINTED WIRING BOARDS – PANEL SECTION –


1
2
3
4
5
A
B
C
D
E
F
G
H
I
J
K
[TC SW BOARD]
S560
S559
S557
S555
DOLBY NR
D527
D528
DECK A PLAY
S558
S556
[PANEL BOARD]
MULTI FUNCTION
1/ALL DISCS
PLAY MODE
S512
S513
DIGITAL ECHO
D529 CD
D531 1/ALL DISCS
D533 PLAY MODE
S511
S510 DSP
D539 TUNER
D541 TUNING MODE
D543 TUNER MEMORY
D549 TIMER
D551 CLOCK SET
D553 SET
CD MUSIC CLIP
S519 CLIP PLAY
S520 CLIP ERASE
S521 CLIP A
D505
Q502
S517 DISPLAY/DEMO
S530 MENU
S509 TIMER
CN502
[CD SW BOARD]
S500 POWER
S501 LOOP
S502 DISC SKIP EX-CHANGE
CN505
02

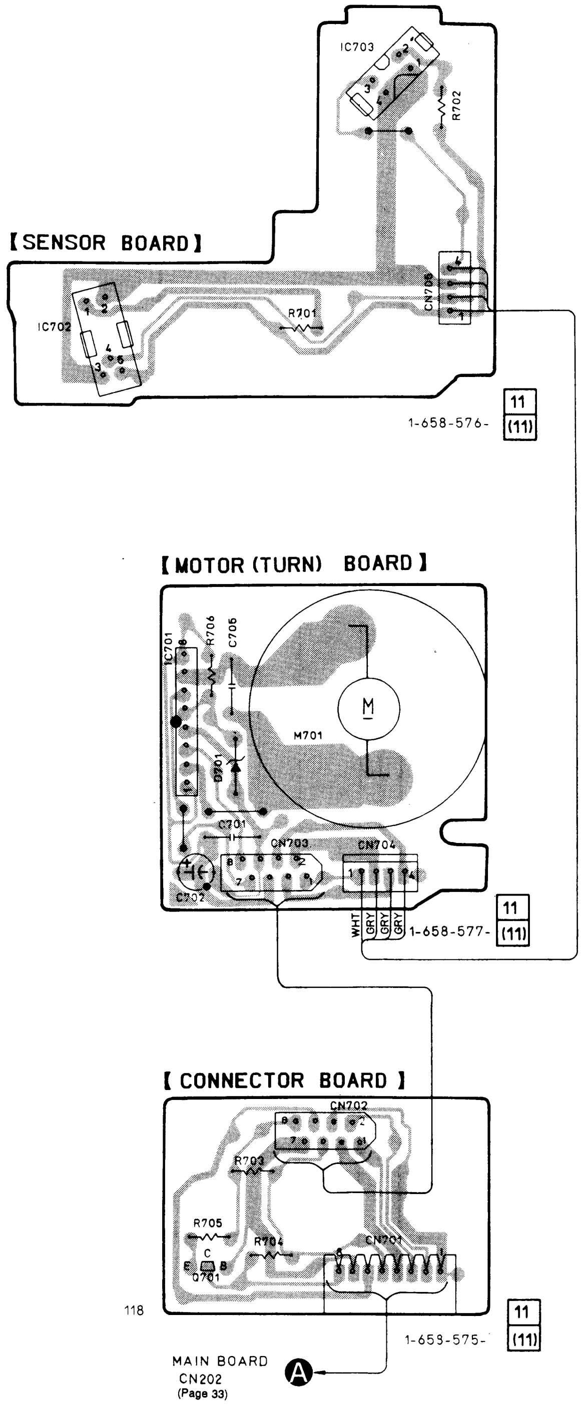

5
6
7
8
9
10
11
12
13
S543
KARAOKE PON/MPX
S544
CD SYNCHRO
S542
●REC
S541
II PAUSE
S555
DOLBY NR
S554
DIRECTION
S545
HIGH SPEED DUBBING
S539
S537
S536
D523
D524
DECK B PLAY
D525
●REC
D526
II PAUSE
S540
◀◀
S538
▶▶
CN506
1-659-115-
11
(11)
[JOG BOARD]
S526, D508
SONIC FORMATION
S562
MULTI JOG STATION
AMS ENCODER SWITCH
S561
VOLUME
VOL ENCODER SWITCH
S529
FREQUENCY−
S527
FREQUENCY+
S528
ENTER/NEXT
S524
DBFB
D509
ENTER/NEXT
1-659-112-
11
(11)
CN504
CN503
MULTI FUNCTION CONTROL
PLAY MODE
REPEAT
EDIT
S513
S514
S515
D533
PLAY MODE
D535
REPEAT
D537
EDIT
D543
TUNER MEMORY
D545
STEREO MONO
D547
PTY
D553
SET
D555
SELECT
D557
SLEEP
CD MUSIC CLIP
S521
CLIP A
S522
CLIP B
S523
CLIP C
D505
D503
D501
S531
MENU 2
S532
MENU 3
S533
MENU 4
S530
MENU 1
S535
EFFECT ON/OFF
S534
P FILE
X500
IC500
FL501
S553
GROOVE
D506
GROOVE
CN501
S552
FUNCTION
CN500
D507
EFFECT ON/OFF
D500
TUNER/BAND
S551
TUNER/BAND
IC501
1-659-111-
11
(11)
D
MAIN BOARD
CN701
(Page 33)
S502
DISC SKIP
EX-CHANGE
D516,517
S503
DISC 1
D518,519
S504
DISC 2
D520,521
S505
DISC 3
S506
⏏ OPEN/CLOSE
S507
■
D522
S508
▷II
1-659-114-
11
(11)

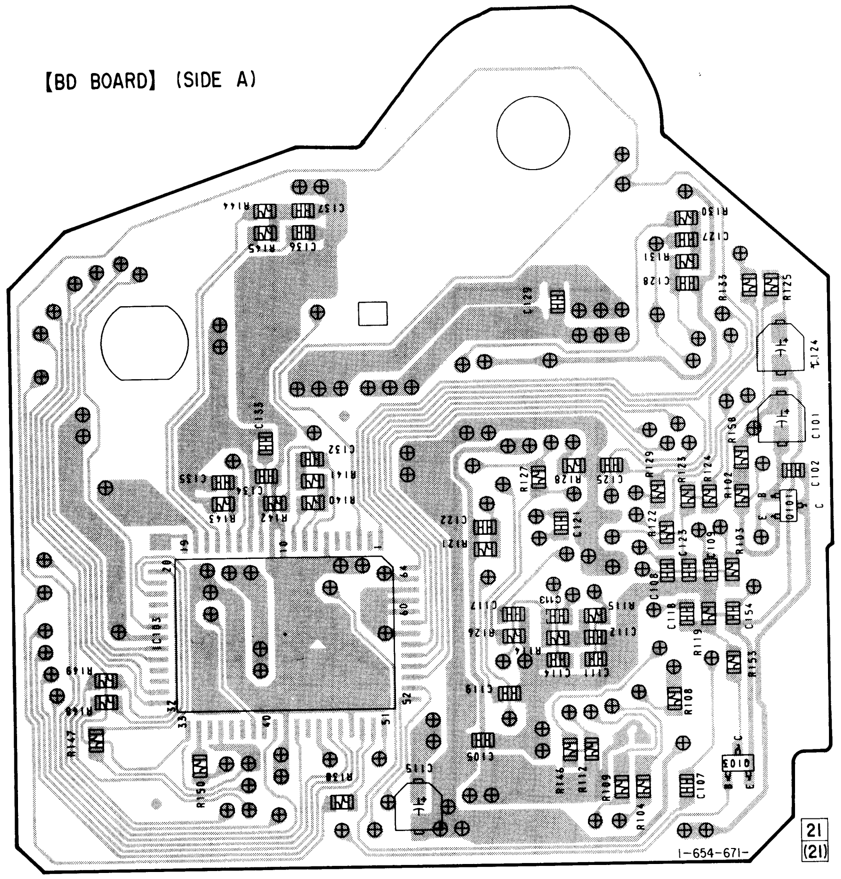
• SEMICONDUCTOR LOC

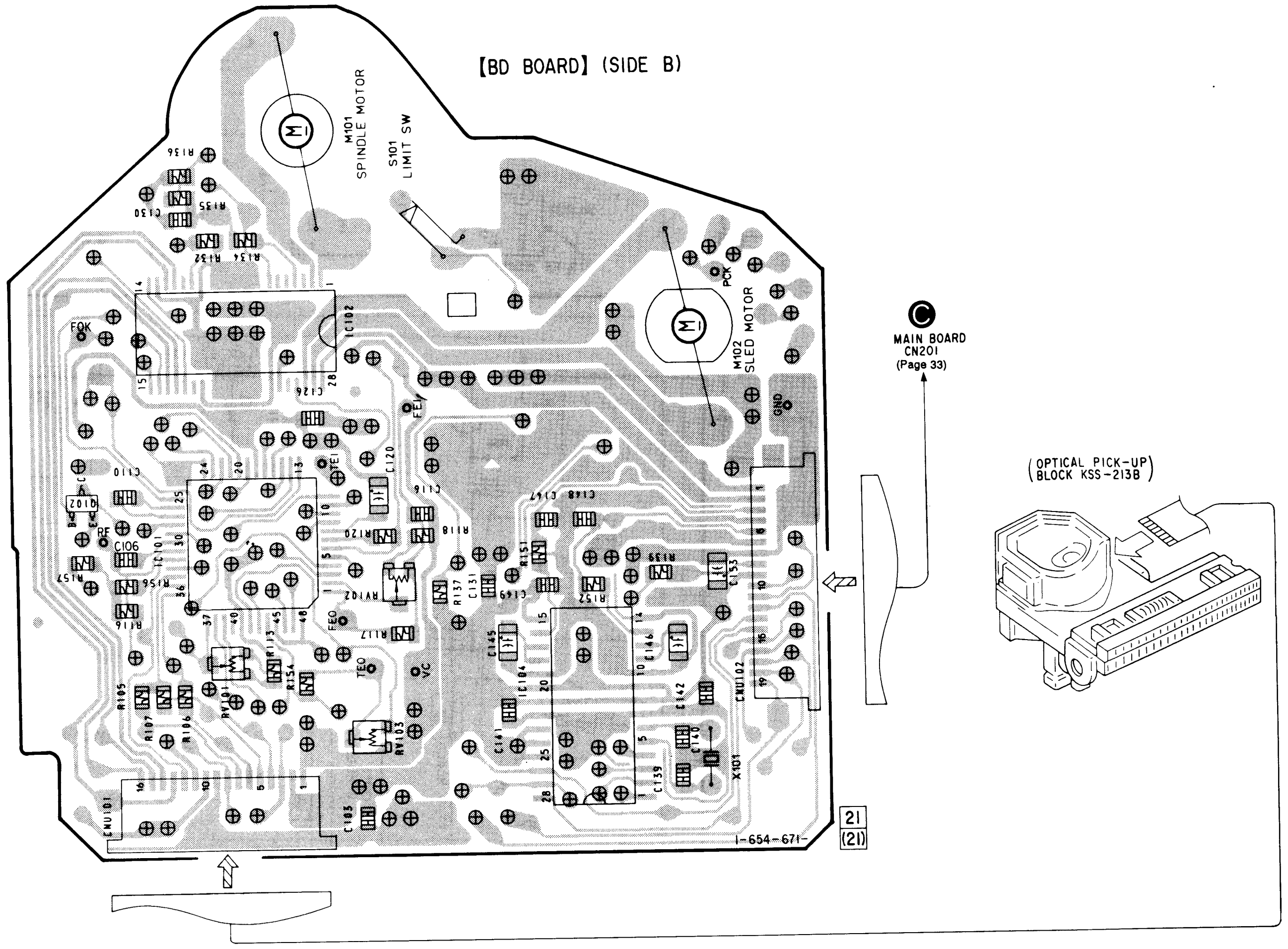
Ref. No.	Location	Ref. No.
D500	H - 12	D545
D501	G - 6	D547
D502	F - 2	D549
D502A	F - 2	D551
D503	G - 5	D553
D504	E - 2	D555
D504A	E - 2	D557
D505	G - 5	D559
D506	F - 12	D560
D507	G - 11	D561
D508	D - 9	D562
D509	F - 8	D563
D510	E - 9	
D511	E - 7	
D512	F - 8	IC500
		IC501
D513	F - 7	
D514	E - 9	
D515	E - 7	Q500
D516	K - 6	Q501
D517	K - 6	Q502
		Q503
D518	K - 7	Q504
D519	K - 7	
D520	K - 8	Q505
D521	K - 8	Q506
D522	K - 12	Q507
		Q508
D523	B - 11	Q509
D524	B - 12	
D525	C - 8	Q510
D526	C - 8	Q511
D527	B - 2	Q512
		Q513
D528	B - 3	Q514
D529	E - 3	
D531	E - 4	Q515
D533	E - 5	Q516
D535	E - 5	Q517
		Q518
D537	E - 6	Q519
D539	F - 3	
D541	F - 4	Q520
D543	F - 5	

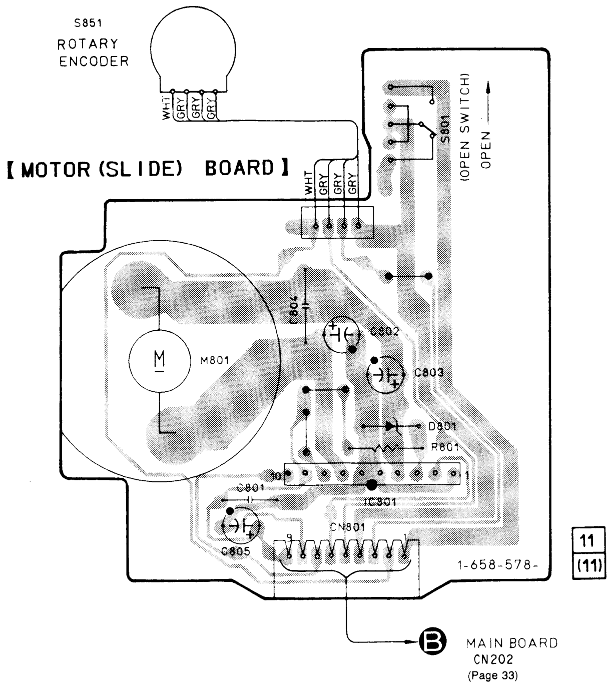
Note:

- O— : parts extracted from the comp
- ░ : Pattern on the side which is


[SENSOR BOARD]
IC703
R702
IC702
R701
CN706
1-658-576-
11
(11)
[MOTOR (TURN) BOARD]
IC701
R706
C706
M701
D701
C701
CN703
CN704
C702
WHT
GRY
GRY
GRY
1-658-577-
11
(11)
[CONNECTOR BOARD]
CN702
R703
R705
R704
CN701
Q701
118
1-658-575-
11
(11)
MAIN BOARD
CN202
(Page 33)
A


[BD BOARD] (SIDE A)
1-654-671-
21
(21)


[BD BOARD] (SIDE B)
M101
SPINDLE MOTOR
S101
LIMIT SW
M102
SLED MOTOR
FOK
CN101
CN102
X101
1-654-671-
21
(21)
C
MAIN BOARD
CN201
(Page 33)
(OPTICAL PICK-UP
BLOCK KSS-213B)


S851
ROTARY
ENCODER
WHT
GRY
GRY
[MOTOR (SLIDE) BOARD]
WHT
GRY
GRY
GRY
S801
(OPEN SWITCH)
OPEN
M801
C804
C802
C803
D801
R801
IC801
C801
C805
CN801
1-658-578-
11
(11)
B
MAIN BOARD
CN202
(Page 33)

- **SEMICONDUCTOR LOCATION**

Ref. No.	Location
D701	E-2
D801	I-8
IC101	D-12
IC102	C-11
IC103	E-6
IC104	E-13
IC701	E-2
IC702	C-2
IC703	A-3
IC801	J-8
Q101	D-9
Q102	D-11
Q103	F-9
Q701	H-2

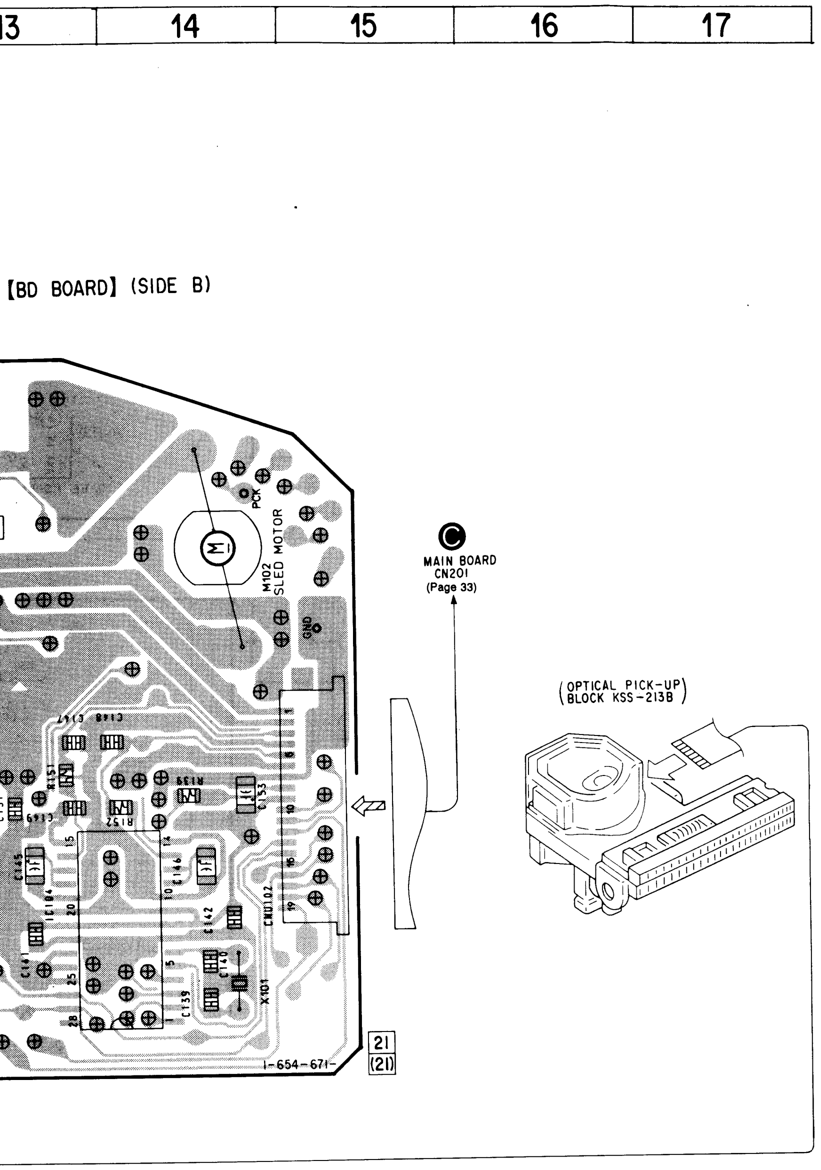
Note:

- ○— : parts extracted from the component side.
- ⊗ : Through hole.
- ▨ : Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated)

Caution :

Pattern face side : (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side : (Component side) Parts on the parts face side seen from the parts face are indicated.

[BD BOARD] (SIDE B)


13
14
15
16
17
M102 SLED MOTOR
MAIN BOARD CN201 (Page 33)
(OPTICAL PICK-UP BLOCK KSS-213B)
CNU102
X101
1-654-671-
21
(21)

te:

—○— : parts extracted from the component side.

⊗ : Through hole.

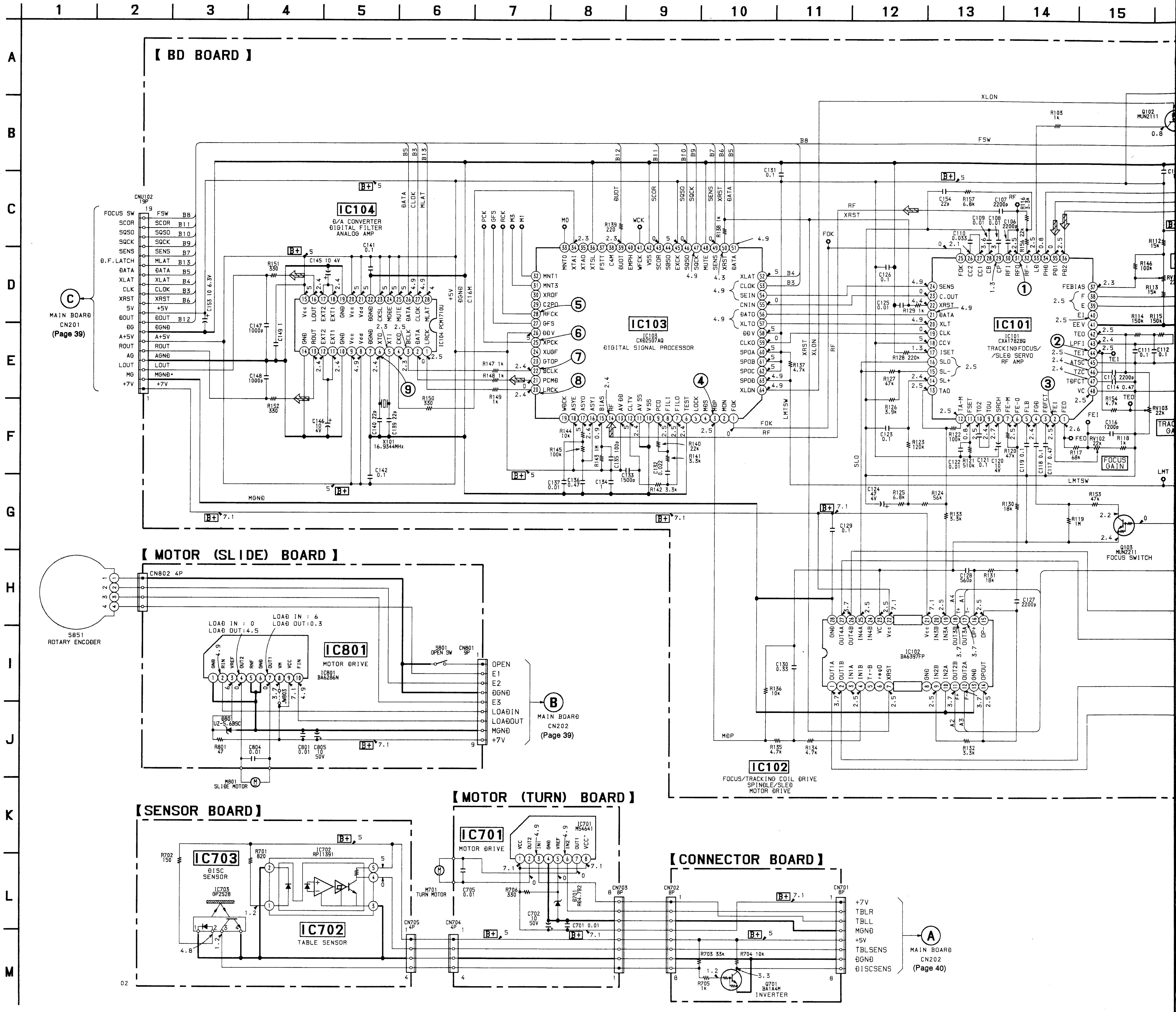
░ : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated)

aution :

attern face side : Parts on the pattern face side seen from
Conductor Side) the pattern face are indicated.
arts face side : Parts on the parts face side seen from the
Component side) parts face are indicated.

6-11. SCHEMATIC DIAGRAM – BD SECTION –

- Refer to page 52 for Waveforms.
- Refer to page 73 for IC Block Diagrams.


1
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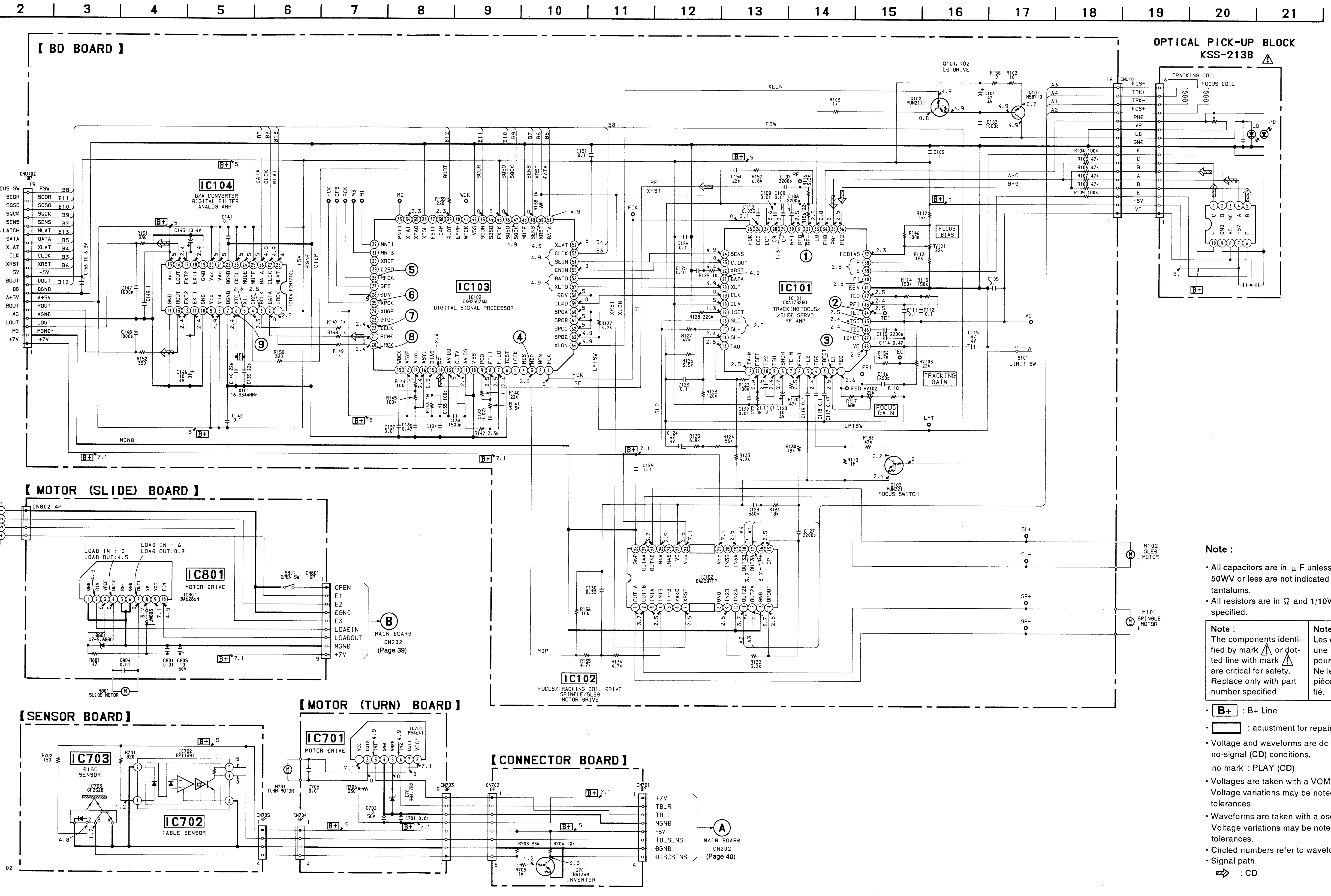
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
K
L
M
[BD BOARD]
IC104
D/A CONVERTER DIGITAL FILTER ANALOG AMP
IC104 PCM1710U
X101 16.9344MHz
IC103
IC103 CXD2507AQ
DIGITAL SIGNAL PROCESSOR
IC101
IC101 CXA1782BQ
TRACKING/FOCUS/SLED SERVO RF AMP
IC102
IC102 BA6397FP
FOCUS/TRACKING COIL DRIVE SPINDLE/SLED MOTOR DRIVE
FOCUS GAIN
Q102 MUN2111
Q103 MUN2211 FOCUS SWITCH
CNU102 19P
FOCUS SW
SCOR
SQSO
SQCK
SENS
D.F.LATCH
DATA
XLAT
CLK
XRST
5V
DOUT
DG
A+5V
ROUT
AG
LOUT
MG
+7V
MAIN BOARD CN201 (Page 39)
[MOTOR (SLIDE) BOARD]
CN802 4P
S851 ROTARY ENCODER
LOAD IN : 0 LOAD OUT:4.5
LOAD IN : 6 LOAD OUT:0.3
IC801
MOTOR DRIVE
IC801 BA6286N
S801 OPEN SW
CN801 9P
OPEN
E1
E2
DGND
E3
LOADIN
LOADOUT
MGND
+7V
MAIN BOARD CN202 (Page 39)
M801 SLIDE MOTOR
[SENSOR BOARD]
IC703
DISC SENSOR
IC703 GP2S28
IC702
TABLE SENSOR
CN705 4P
[MOTOR (TURN) BOARD]
IC701
MOTOR DRIVE
IC701 M54641
M701 TURN MOTOR
CN704 4P
CN703 8P
[CONNECTOR BOARD]
CN702 8P
CN701 8P
+7V
TBLR
TBLL
MGND
+5V
TBLSENS
DGND
DISCSENS
MAIN BOARD CN202 (Page 40)
Q701 BA1A4M INVERTER

DIAGRAM – BD SECTION – • Refer to page 52 for Waveforms. • Refer to page 73 for IC Block Diagrams.


2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
【 BD BOARD 】
OPTICAL PICK-UP BLOCK
KSS-213B
TRACKING COIL
FOCUS COIL
CNU101
CNU102 19P
IC104
D/A CONVERTER
DIGITAL FILTER
ANALOG AMP
IC104 PCM1710U
IC103
CXD2507AQ
DIGITAL SIGNAL PROCESSOR
IC101
CXA1782BQ
TRACKING FOCUS/
/SLED SERVO
RF AMP
Q101,102
LD DRIVE
Q103
MUN2211
FOCUS SWITCH
FOCUS BIAS
TRACKING GAIN
FOCUS GAIN
S101
LIMIT SW
X101
16.9344MHz
IC102
BA6397FP
FOCUS/TRACKING COIL DRIVE
SPINDLE/SLED
MOTOR DRIVE
M102
SLED
MOTOR
M101
SPINDLE
MOTOR
【 MOTOR (SLIDE) BOARD 】
CN802 4P
IC801
MOTOR DRIVE
IC801
BA6286N
LOAD IN : 0
LOAD OUT:4.5
LOAD IN : 6
LOAD OUT:0.3
S801
OPEN SW
CN801
9P
OPEN
E1
E2
DGND
E3
LOADIN
LOADOUT
MGND
+7V
MAIN BOARD
CN202
(Page 39)
M801
SLIDE MOTOR
【SENSOR BOARD】
IC703
DISC
SENSOR
IC703
GP2S28
IC702
RPI1391
IC702
TABLE SENSOR
【MOTOR (TURN) BOARD】
IC701
MOTOR DRIVE
IC701
M54641
M701
TURN MOTOR
【CONNECTOR BOARD】
+7V
TBLR
TBLL
MGND
+5V
TBLSENS
DGND
DISCSENS
MAIN BOARD
CN202
(Page 40)
Q701
BA1A4M
INVERTER
FSW
SCOR
SQSO
SQCK
SENS
MLATCH
DATA
XLAT
CLK
XRST
5V
DOUT
DG
A+5V
ROUT
AG
LOUT
MG
+7V
MGND
XLON
FSW
RF
XRST
FOK
LMTSW
SLO
MDP
B+
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
02

Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/10W or less unless otherwise specified.

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

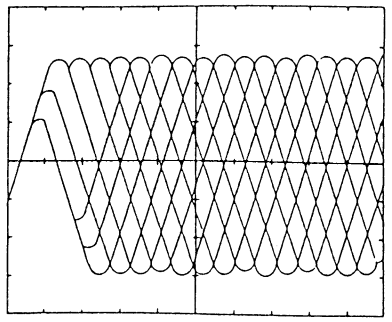
- B+ : B+ Line
- ☐ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (CD) conditions.

  no mark : PLAY (CD)
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.

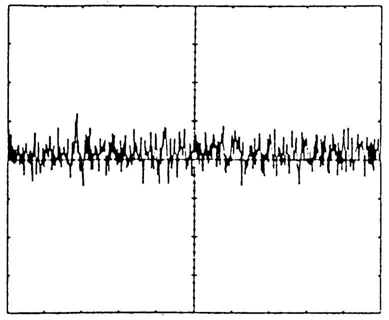
  ⇨ : CD

• WAVEFORMS – BD Section –

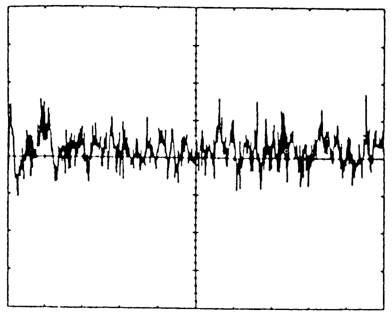
① IC101 ㉛pin 1.4Vp-p



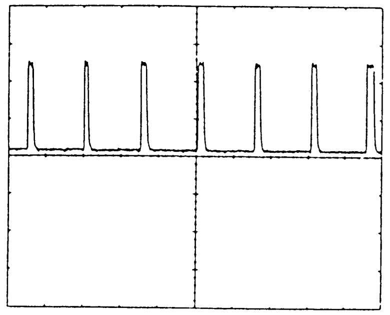
② IC101 ㊹pin 8mVp-p 0.2ms/DIV



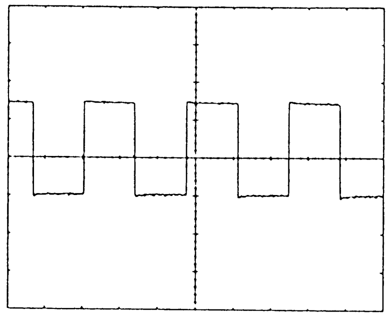
③ IC101 ②pin 20mVp-p 2ms/DIV



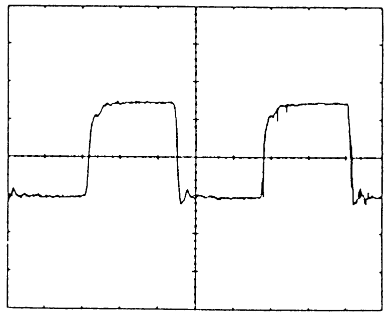
④ IC103 ③pin 2.4Vp-p 7.5μsec



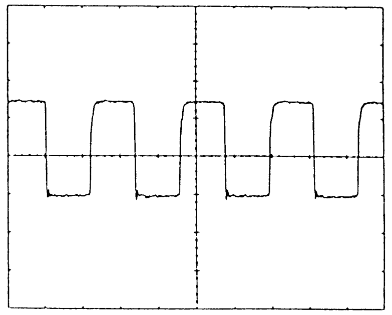
⑤ IC103 ㉘pin 5.1Vp-p 137μsec



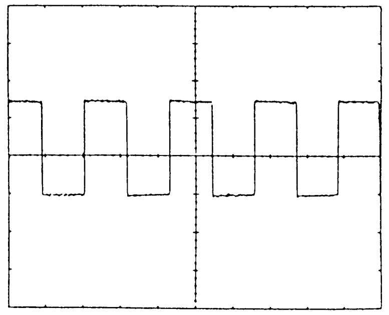
⑥ IC103 ㉕pin 5.1Vp-p 232.7nsec



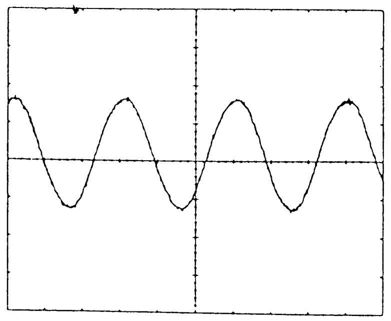
⑦ IC103 ㉒pin 5.1Vp-p 472.7nsec



⑧ IC103 ⑳pin 5.1Vp-p 23μsec



⑨ IC104 ⑥ pin 3Vp-p 16.9344MHz



Note :

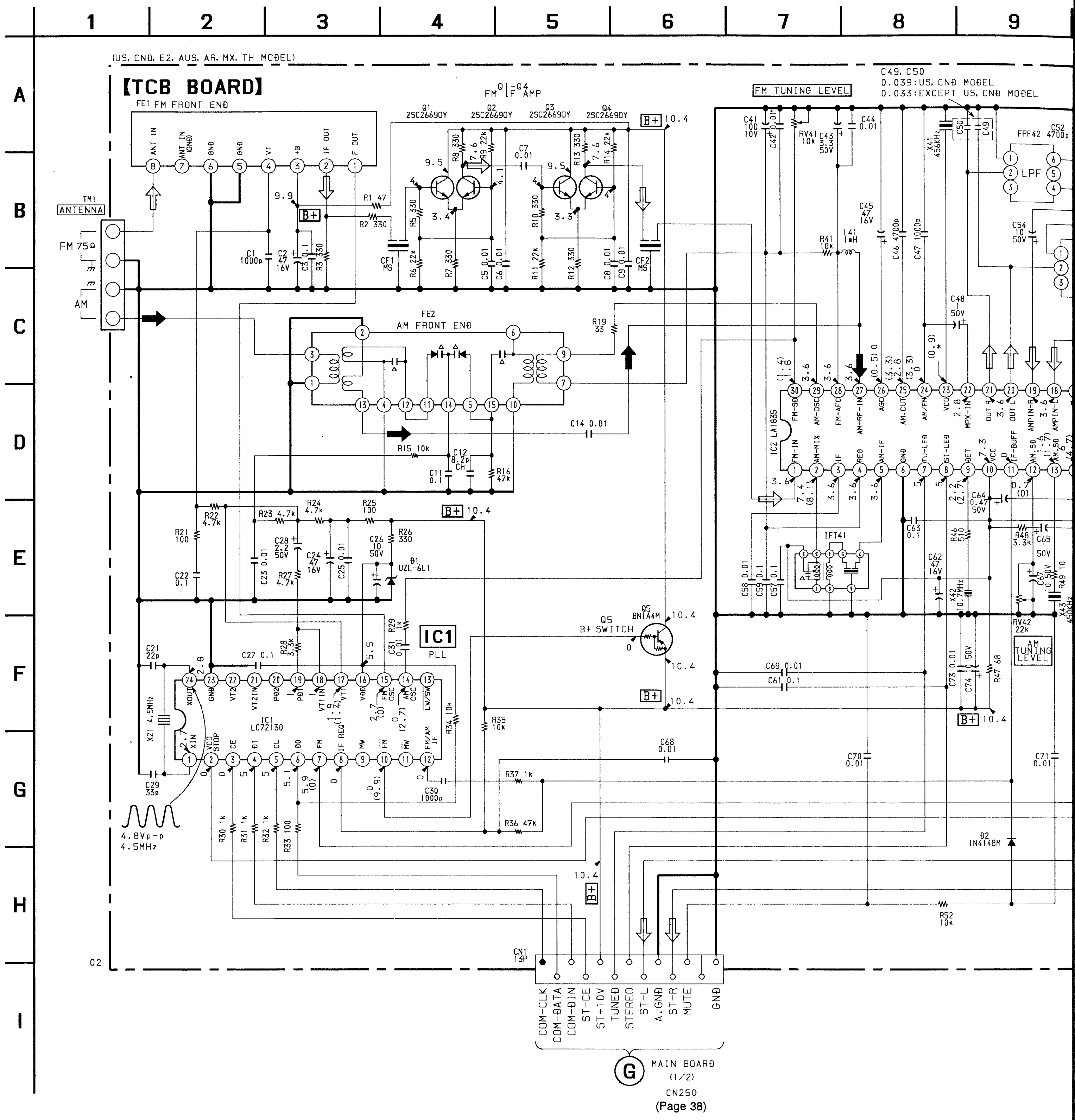
- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- **B+** : B+ Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - ⇨ : FM
  - ➡ : AM
- Abbreviation

CND	Canadian	JE	Tourist
IT	Italian	AR	Argentine
G	German	E2	Tuner sections SW BAND do not exist.
EE	East European	E3	Tuner sections SW BAND exist.
IA	Indonesia	MX	Mexican
EA	Saudi Arabia	TH	Thailand
HK	Hong Kong	TW	Taiwan
SP	Singapore		
MY	Malaysia		
AUS	Australian		

6-12. SCHEMATIC DIAGRAM – TCB SECTION – (US, CND, E2, AUS, AR, MX, TH MODEL) • Refer to page 74 for IC Block Diag


1
2
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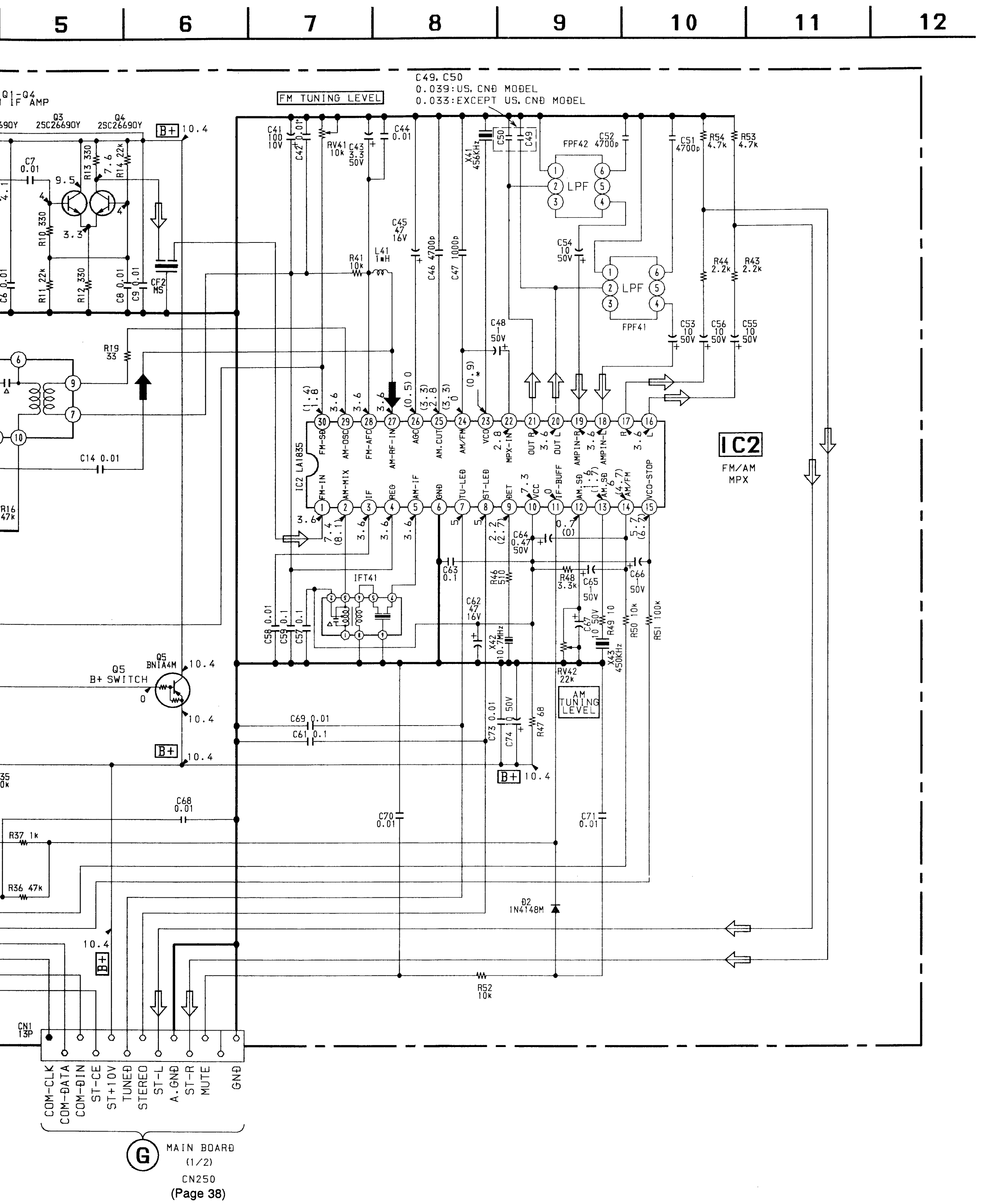
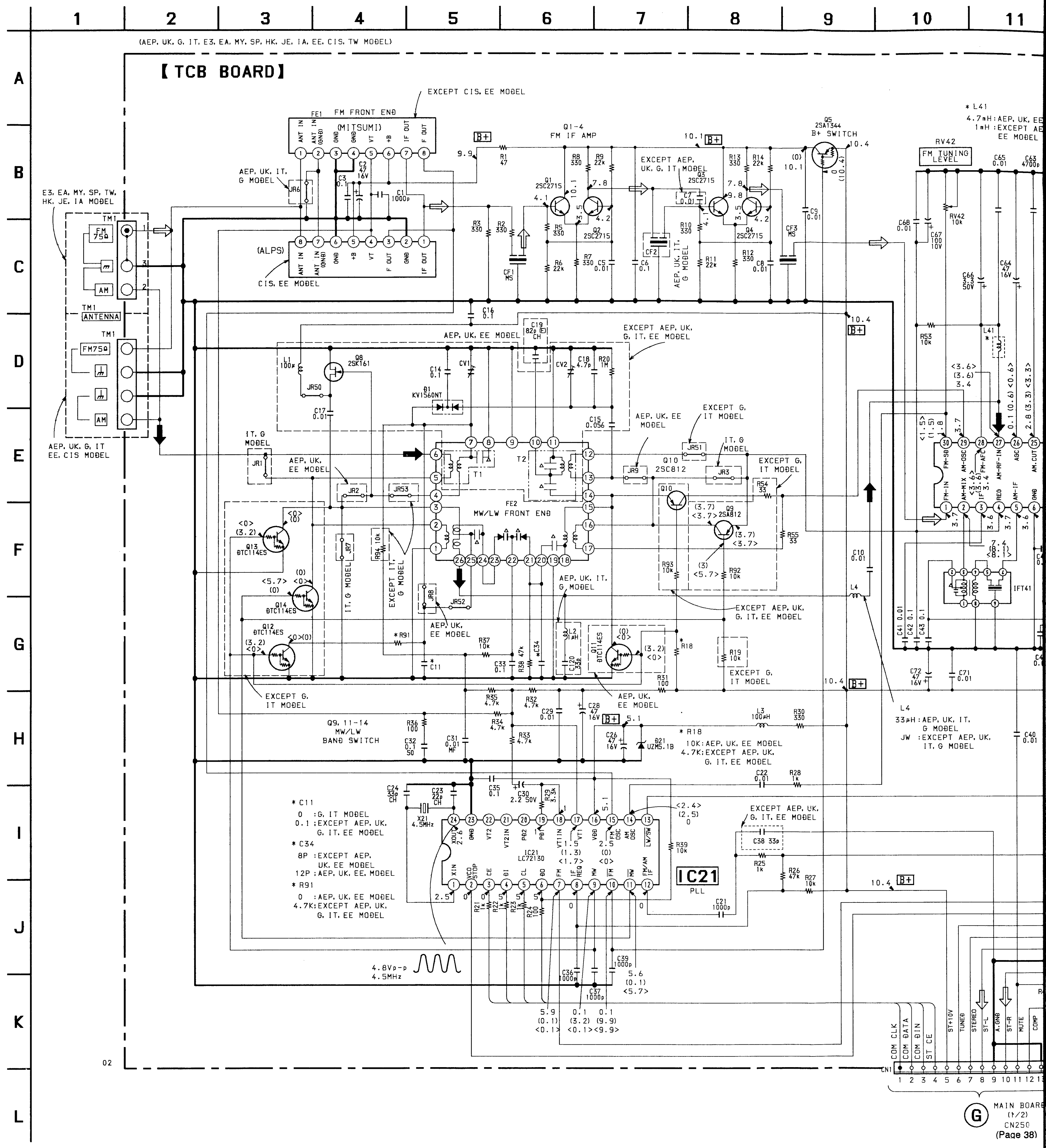
5
6
7
8
9
A
B
C
D
E
F
G
H
I
(US, CND, E2, AUS, AR, MX, TH MODEL)
[TCB BOARD]
FE1 FM FRONT END
ANT IN
IF OUT
F OUT
Q1-Q4 FM IF AMP
Q1 2SC2669OY
Q2 2SC2669OY
Q3 2SC2669OY
Q4 2SC2669OY
TM1 ANTENNA
FM 75Ω
AM
FE2 AM FRONT END
IC1 LC72130 PLL
X21 4.5MHz
4.8Vp-p 4.5MHz
Q5 BN1A4M B+ SWITCH
B+ 10.4
FM TUNING LEVEL
C49, C50 0.039:US, CND MODEL 0.033:EXCEPT US, CND MODEL
IC2 LA1835
IFT41
LPF
AM TUNING LEVEL
D2 1N4148M
CN1 13P
COM-CLK
COM-DATA
COM-DIN
ST-CE
ST+10V
TUNED
STEREO
ST-L
A.GND
ST-R
MUTE
GND
G MAIN BOARD (1/2) CN250 (Page 38)

E2, AUS, AR, MX, TH MODEL) • Refer to page 74 for IC Block Diagrams.


5
6
7
8
9
10
11
12
FM TUNING LEVEL
C49, C50
0.039:US, CND MODEL
0.033:EXCEPT US, CND MODEL
Q1-Q4 IF AMP
Q3 2SC2669OY
Q4 2SC2669OY
FPF42
FPF41
LPF
IC2 LA1835
IC2
FM/AM MPX
IFT41
Q5 BN1A4M
B+ SWITCH
RV42 22k
AM TUNING LEVEL
D2 1N4148M
X42 10.7MHz
X43 450kHz
X41 456kHz
CN1 13P
COM-CLK
COM-DATA
COM-DIN
ST-CE
ST+10V
TUNED
STEREO
ST-L
A.GND
ST-R
MUTE
GND
G
MAIN BOARD (1/2)
CN250
(Page 38)

(AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS MODEL) • Refer to page 74 for IC Block Diagrams.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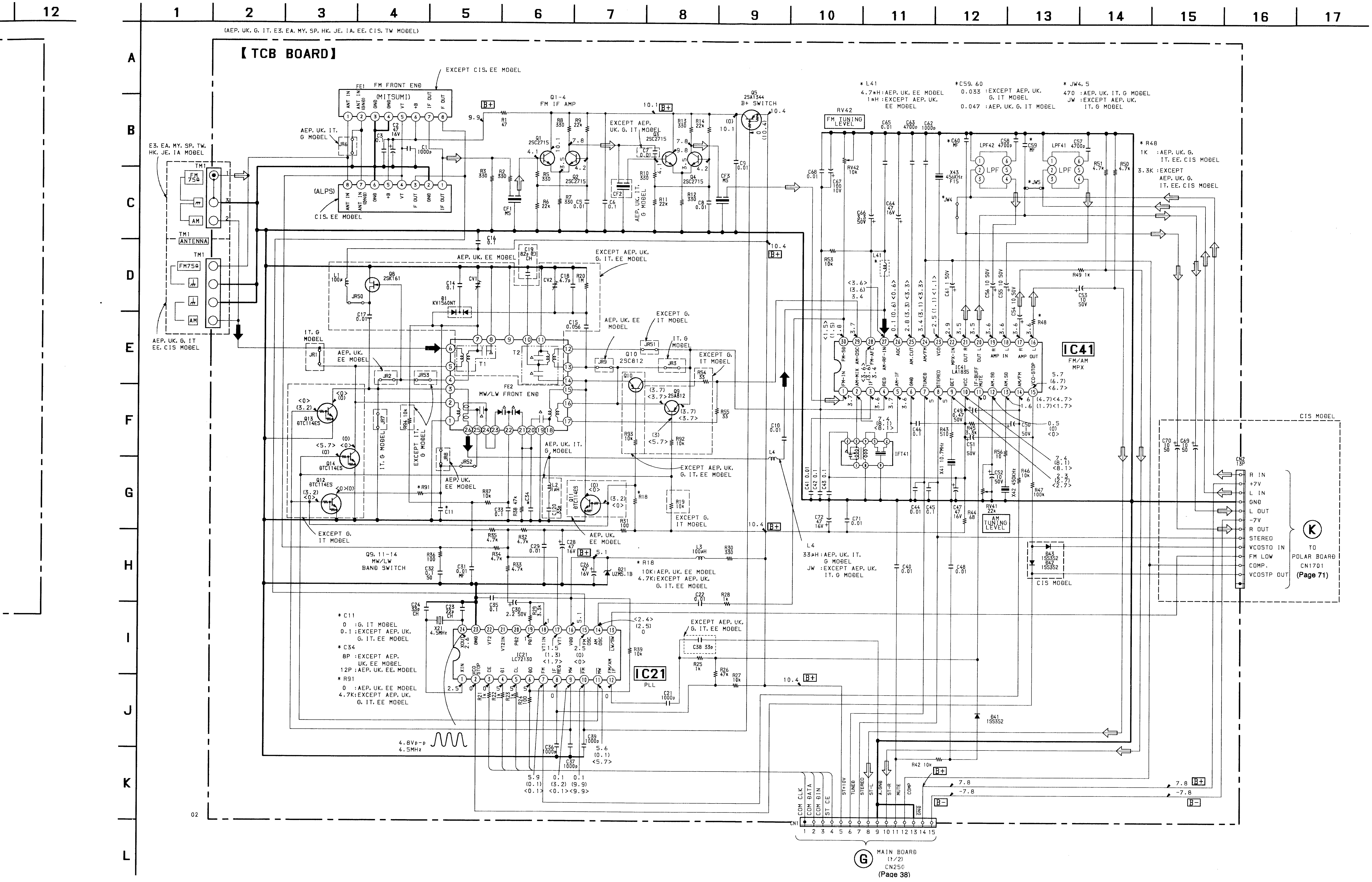
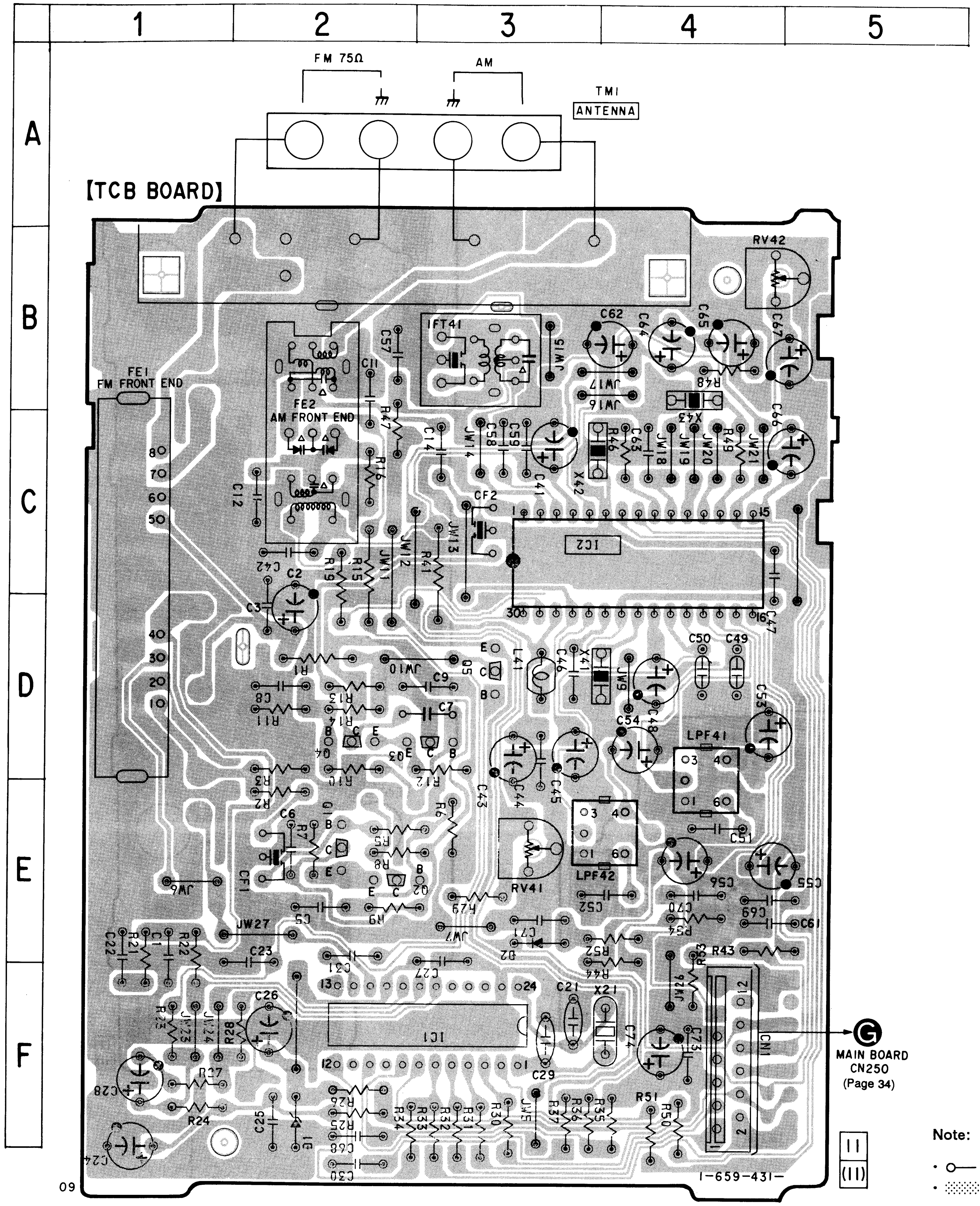
11
A
B
C
D
E
F
G
H
I
J
K
L
(AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS, TW MODEL)
【TCB BOARD】
EXCEPT CIS, EE MODEL
FE1 FM FRONT END (MITSUMI)
(ALPS)
CIS, EE MODEL
AEP, UK, IT, G MODEL
E3, EA, MY, SP, TW, HK, JE, IA MODEL
AEP, UK, G, IT EE, CIS MODEL
TM1 ANTENNA
FM 75Ω
AM
Q1-4 FM IF AMP
Q5 2SA1344 B+ SWITCH
EXCEPT AEP, UK, G, IT MODEL
* L41
4.7mH:AEP, UK, EE
1mH:EXCEPT AEP, EE MODEL
RV42 FM TUNING LEVEL
Q8 2SK161
D1 KV1560NT
T1
T2
FE2 MW/LW FRONT END
AEP, UK, EE MODEL
EXCEPT AEP, UK, G, IT, EE MODEL
EXCEPT G, IT MODEL
Q10 2SC812
Q9 2SA812
Q13 DTC114ES
Q14 DTC114ES
Q12 DTC114ES
Q11 DTC114ES
Q9, 11-14 MW/LW BAND SWITCH
IT, G MODEL
AEP, UK, IT, G MODEL
* R18
10K:AEP, UK, EE MODEL
4.7K:EXCEPT AEP, UK, G, IT, EE MODEL
* C11
0 :G, IT MODEL
0.1 :EXCEPT AEP, UK, G, IT, EE MODEL
* C34
8P :EXCEPT AEP, UK, EE MODEL
12P :AEP, UK, EE, MODEL
* R91
0 :AEP, UK, EE MODEL
4.7K:EXCEPT AEP, UK, G, IT, EE MODEL
X21 4.5MHz
IC21 LC72130
IC21 PLL
4.8Vp-p 4.5MHz
L4
33μH:AEP, UK, IT, G MODEL
JW :EXCEPT AEP, UK, IT, G MODEL
IFT41
CN1
COM CLK
COM DATA
COM DIN
ST CE
ST+10V
TUNED
STEREO
ST-L
A.GND
ST-R
MUTE
COMP
G
MAIN BOARD (1/2)
CN250
(Page 38)


(AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS, TW MODEL)
【TCB BOARD】
FE1 FM FRONT END (MITSUMI)
EXCEPT CIS, EE MODEL
(ALPS)
CIS, EE MODEL
Q1-4 FM IF AMP
Q5 2SA1344 B+ SWITCH
TM1 ANTENNA
E3, EA, MY, SP, TW, HK, JE, IA MODEL
AEP, UK, G, IT EE, CIS MODEL
FE2 MW/LW FRONT END
Q8 2SK161
D1 KV1560NT
Q10 2SC812
Q9 2SA812
Q13 DTC114ES
Q14 DTC114ES
Q12 DTC114ES
Q11 DTC114ES
Q9, 11-14 MW/LW BAND SWITCH
IC21 LC72130 PLL
X21 4.5MHz
4.8Vp-p 4.5MHz
IC41 LA1835 FM/AM MPX
RV42 FM TUNING LEVEL
RV41 22k AM TUNING LEVEL
LPF42
LPF41
X43 456kHz
IFT41
* L41 4.7mH: AEP, UK, EE MODEL 1mH: EXCEPT AEP, UK, EE MODEL
* C59, 60 0.033: EXCEPT AEP, UK, G, IT MODEL 0.047: AEP, UK, G, IT MODEL
* JW4, 5 470: AEP, UK, IT, G MODEL JW: EXCEPT AEP, UK, IT, G MODEL
* R48 1K: AEP, UK, G, IT, EE, CIS MODEL 3.3K: EXCEPT AEP, UK, G, IT, EE, CIS MODEL
* R18 10K: AEP, UK, EE MODEL 4.7K: EXCEPT AEP, UK, G, IT, EE MODEL
L4 33μH: AEP, UK, IT, G MODEL JW: EXCEPT AEP, UK, IT, G MODEL
* C11 0: G, IT MODEL 0.1: EXCEPT AEP, UK, G, IT, EE MODEL
* C34 8P: EXCEPT AEP, UK, EE MODEL 12P: AEP, UK, EE, MODEL
* R91 0: AEP, UK, EE MODEL 4.7K: EXCEPT AEP, UK, G, IT, EE MODEL
D43 1SS352 D42 1SS352 CIS MODEL
CIS MODEL
CN2 13P
R IN
+7V
L IN
GND
L OUT
-7V
R OUT
STEREO
VCOSTO IN
FM LOW
COMP.
VCOSTP OUT
Ⓚ TO POLAR BOARD CN1701 (Page 71)
CN1
COM CLK
COM DATA
COM DIN
ST CE
ST+10V
TUNED
STEREO
A.GND
ST-L
ST-R
MUTE
COMP
GND
Ⓖ MAIN BOARD (1/2) CN250 (Page 38)
D41 1SS352
R42 10k
10.4 B+
7.8
-7.8
B-
02

6-13. PRINTED WIRING BOARDS – TCB SECTION – (US, CND, E2, AUS, AR, MX, TH MODEL)


1
2
3
4
5
A
B
C
D
E
F
FM 75Ω
AM
TMI
ANTENNA
【TCB BOARD】
FE1
FM FRONT END
FE2
AM FRONT END
IFT41
IC1
IC2
RV41
RV42
LPF41
LPF42
CF1
CF2
CN1
MAIN BOARD
CN250
(Page 34)
G
I
(II)
1-659-431-
09

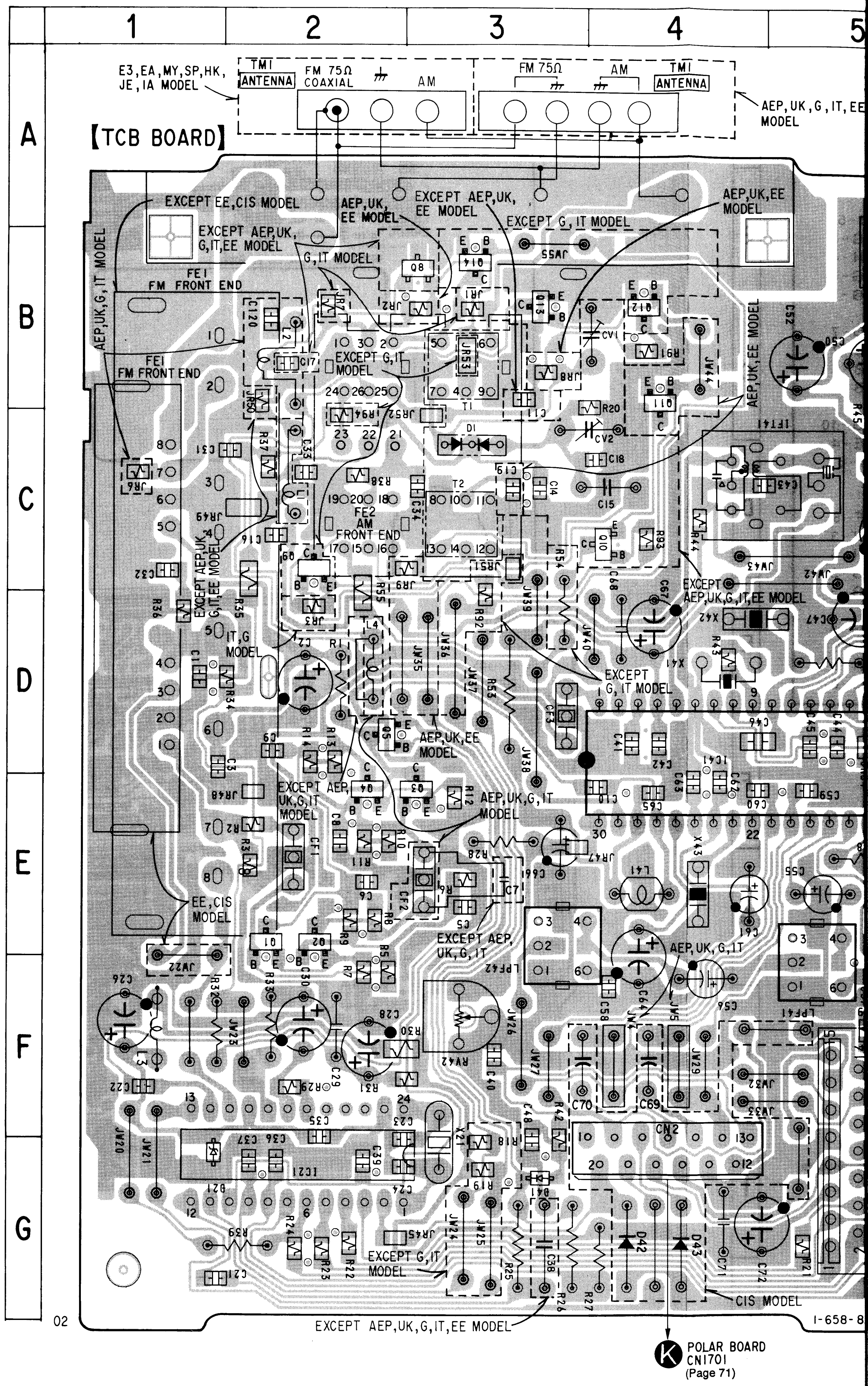
- **SEMICONDUCTOR LOCATION**

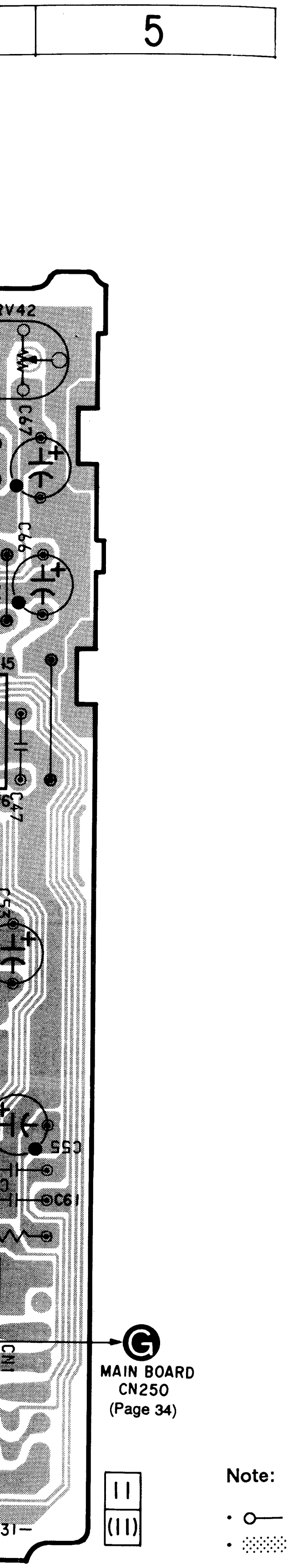
Ref. No.	Location
D1	F-2
D2	E-3
IC1	F-3
IC2	C-3
Q1	E-2
Q2	E-2
Q3	D-3
Q4	D-2
Q5	D-3

Note:

- ○— : parts extracted from the component side.
- ░░ : Pattern on the side which is seen.
- Abbreviation
  CND : Canadian
  AUS : Australian
  AR : Argentine
  MX : Mexican
  TH : Thailand

(AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS MODEL)


1
2
3
4
A
B
C
D
E
F
G
E3,EA,MY,SP,HK, JE,IA MODEL
TMI ANTENNA
FM 75Ω COAXIAL
AM
FM 75Ω
AM
TMI ANTENNA
AEP,UK,G,IT,EE MODEL
【TCB BOARD】
EXCEPT EE,CIS MODEL
AEP,UK, EE MODEL
EXCEPT AEP,UK, EE MODEL
EXCEPT G,IT MODEL
AEP,UK,EE MODEL
EXCEPT AEP,UK, G,IT,EE MODEL
G,IT MODEL
AEP,UK,G,IT MODEL
FE1 FM FRONT END
FE2 AM FRONT END
EXCEPT G,IT MODEL
AEP,UK,EE MODEL
EXCEPT AEP,UK,G,IT,EE MODEL
EXCEPT AEP,UK,G,IT MODEL
IT,G MODEL
EXCEPT G,IT MODEL
AEP,UK,EE MODEL
EXCEPT AEP, UK,G,IT MODEL
AEP,UK,G,IT MODEL
EE,CIS MODEL
EXCEPT AEP, UK,G,IT
AEP,UK,G,IT
EXCEPT G,IT MODEL
CIS MODEL
EXCEPT AEP,UK,G,IT,EE MODEL
IC1
IC2
CN2
K
POLAR BOARD
CN1701
(Page 71)
02
1-658-8


5
RV42
C67
C66
C47
C55
C61
CN1
MAIN BOARD
CN250
(Page 34)
11
(11)

• SEMICONDUCTOR LOCATION

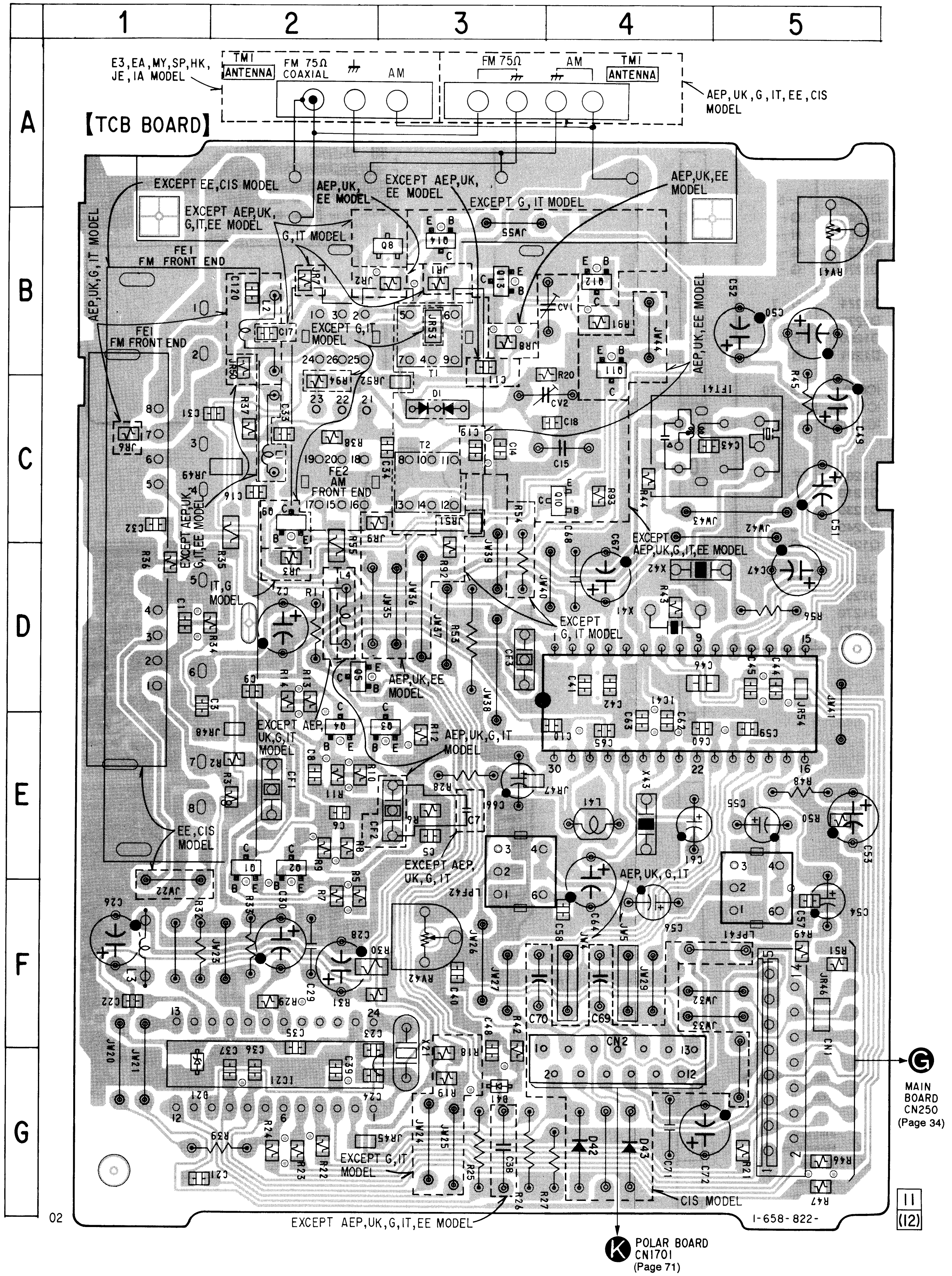
Ref. No.	Location
D1	F - 2
D2	E - 3
IC1	F - 3
IC2	C - 3
Q1	E - 2
Q2	E - 2
Q3	D - 3
Q4	D - 2
Q5	D - 3

Note:

- ○— : parts extracted from the component side.
- ░░ : Pattern on the side which is seen.

• Abbreviation
CND : Canadian
AUS : Australian
AR : Argentine
MX : Mexican
TH : Thailand

(AEP, UK, G, IT, E3, EA, MY, SP, HK, JE, IA, EE, CIS MODEL)


1
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A
B
C
D
E
F
G
【TCB BOARD】
E3, EA, MY, SP, HK, JE, IA MODEL
TMI ANTENNA
FM 75Ω COAXIAL
AM
FM 75Ω
AM
TMI ANTENNA
AEP, UK, G, IT, EE, CIS MODEL
EXCEPT EE, CIS MODEL
AEP, UK, EE MODEL
EXCEPT AEP, UK, EE MODEL
EXCEPT G, IT MODEL
AEP, UK, EE MODEL
EXCEPT AEP, UK, G, IT, EE MODEL
G, IT MODEL
AEP, UK, G, IT MODEL
FE1 FM FRONT END
FE1 FM FRONT END
EXCEPT G, IT MODEL
FE2 AM FRONT END
AEP, UK, EE MODEL
EXCEPT AEP, UK, G, IT, EE MODEL
EXCEPT AEP, UK, G, IT, EE MODEL
IT, G MODEL
EXCEPT G, IT MODEL
AEP, UK, EE MODEL
EXCEPT AEP, UK, G, IT MODEL
AEP, UK, G, IT MODEL
EE, CIS MODEL
EXCEPT AEP, UK, G, IT
AEP, UK, G, IT
EXCEPT G, IT MODEL
CIS MODEL
EXCEPT AEP, UK, G, IT, EE MODEL
IC41
IC21
CN2
CN1
T1
T2
D1
D42
D43
LPF41
LPF42
L41
X41
X42
X43
RV41
RV42
IFT41
CF1
CF2
CF3
MAIN BOARD
CN250
(Page 34)
POLAR BOARD
CN1701
(Page 71)
1-658-822-
02
11
(12)

• SEMICONDUCTOR LOCATION

Ref. No.	Location
D1	C - 3
D21	G - 1
D41	G - 3
D42	G - 4
D43	G - 4
Q1	E - 2
Q2	E - 2
Q3	E - 3
Q4	E - 2
Q5	D - 2
Q8	B - 3
Q9	C - 2
Q10	C - 4
Q11	B - 4
Q12	B - 4
Q13	B - 3
Q14	B - 3
IC21	G - 2
IC41	D - 4

Note:

- ○— : parts extracted from the component side.
- ░░ : Pattern on the side which is seen.

• Abbreviation
G : German
IT : Italian
EE : East European
EA : Saudi Arabia
MY : Malaysia
SP : Singapore
HK : Hong Kong
JE : Tourist
IA : Indonesia
TW : Taiwan

Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line
- B − : B − Line
- ☐ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
- Abbreviation

CND	Canadian	HK	Hong Kong
AUS	Australian	JE	Tourist
AR	Argentine	IA	Indonesia
MX	Mexican	G	German
TH	Thailand	IT	Italian
EA	Saudi Arabia	EE	East European
MY	Malaysia	TW	Taiwan
SP	Singapore		

- **SEMICONDUCTOR LOCATION**

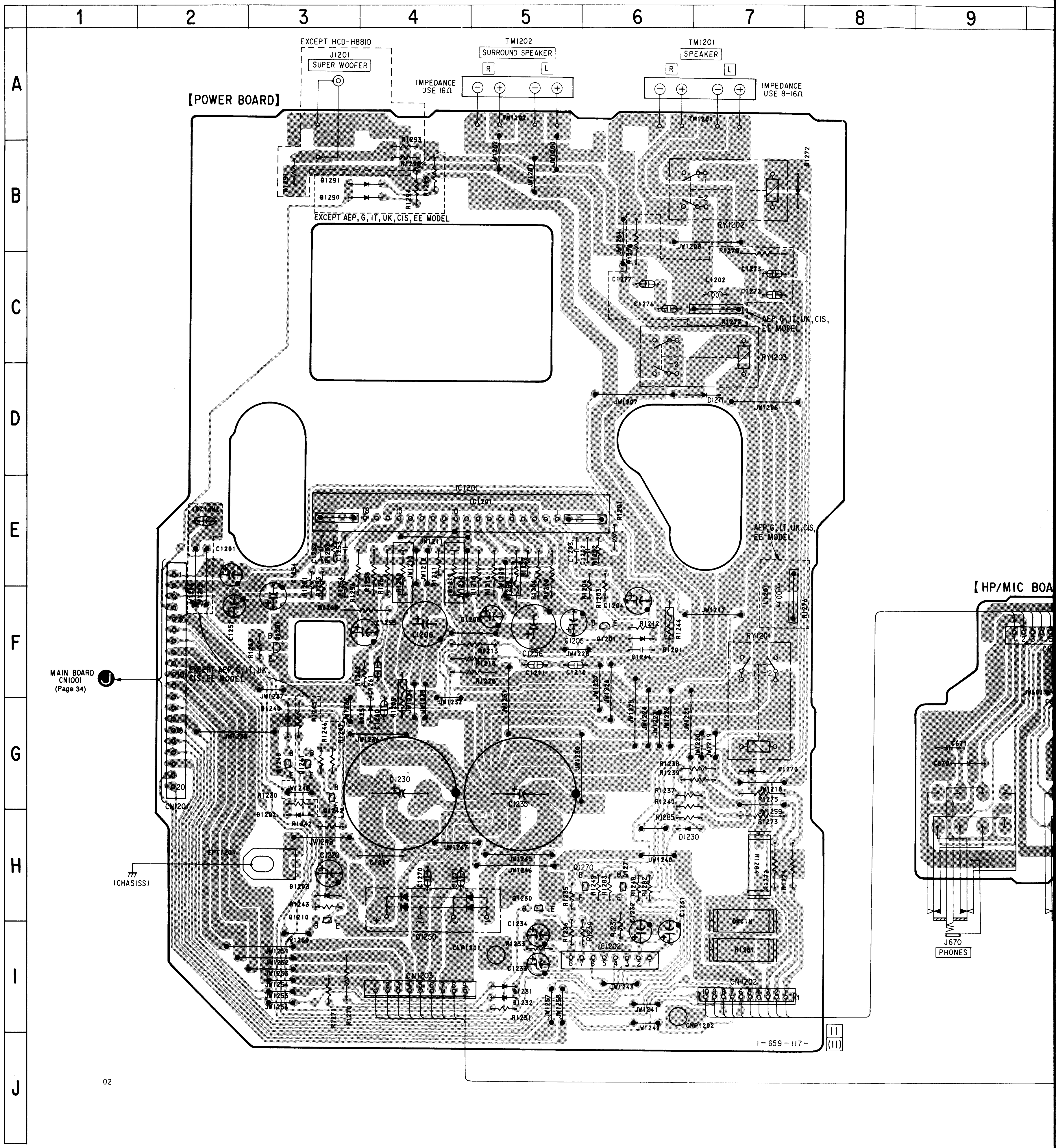
Ref. No.	Location
D1201	F - 6
D1202	H - 3
D1203	H - 3
D1230	H - 6
D1231	I - 5
D1232	I - 5
D1240	G - 3
D1250	H - 4
D1251	G - 4
D1270	G - 7
D1271	D - 7
D1272	B - 7
D1290	B - 4
D1291	B - 4
IC670	G - 10
IC1201	E - 4
IC1202	I - 6
Q1201	F - 6
Q1210	H - 3
Q1230	H - 5
Q1240	G - 3
Q1241	G - 3
Q1242	G - 3
Q1251	F - 3
Q1270	H - 6
Q1271	H - 6

Note:

- ○— : parts extracted from the component side.
- ░ : Pattern on the side which is seen.
- Abbreviation

CND	Canadian	SP	Singapore
AUS	Australian	HK	Hong Kong
AR	Argentine	JE	Tourist
MX	Mexican	IA	Indonesia
TH	Thailand	G	German
EA	Saudi Arabia	IT	Italian
MY	Malaysia	EE	East European

6-14. PRINTED WIRING BOARDS – POWER SECTION –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B
C
D
E
F
G
H
I
J
EXCEPT HCD-H881D
J1201
SUPER WOOFER
TM1202
SURROUND SPEAKER
R
L
IMPEDANCE USE 16Ω
TM1201
SPEAKER
IMPEDANCE USE 8-16Ω
[POWER BOARD]
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
RY1202
AEP, G, IT, UK, CIS, EE MODEL
RY1203
D1271
IC1201
AEP, G, IT, UK, CIS, EE MODEL
RY1201
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
MAIN BOARD CN1001 (Page 34)
CN1201
C1230
C1235
EPT1201
(CHASSIS)
D1250
CLP1201
IC1202
CN1203
CN1202
CNP1202
1-659-117-
(11)
[HP/MIC BOA
J670
PHONES
02

6-14. PRINTED WIRING BOARDS – POWER SECTION –

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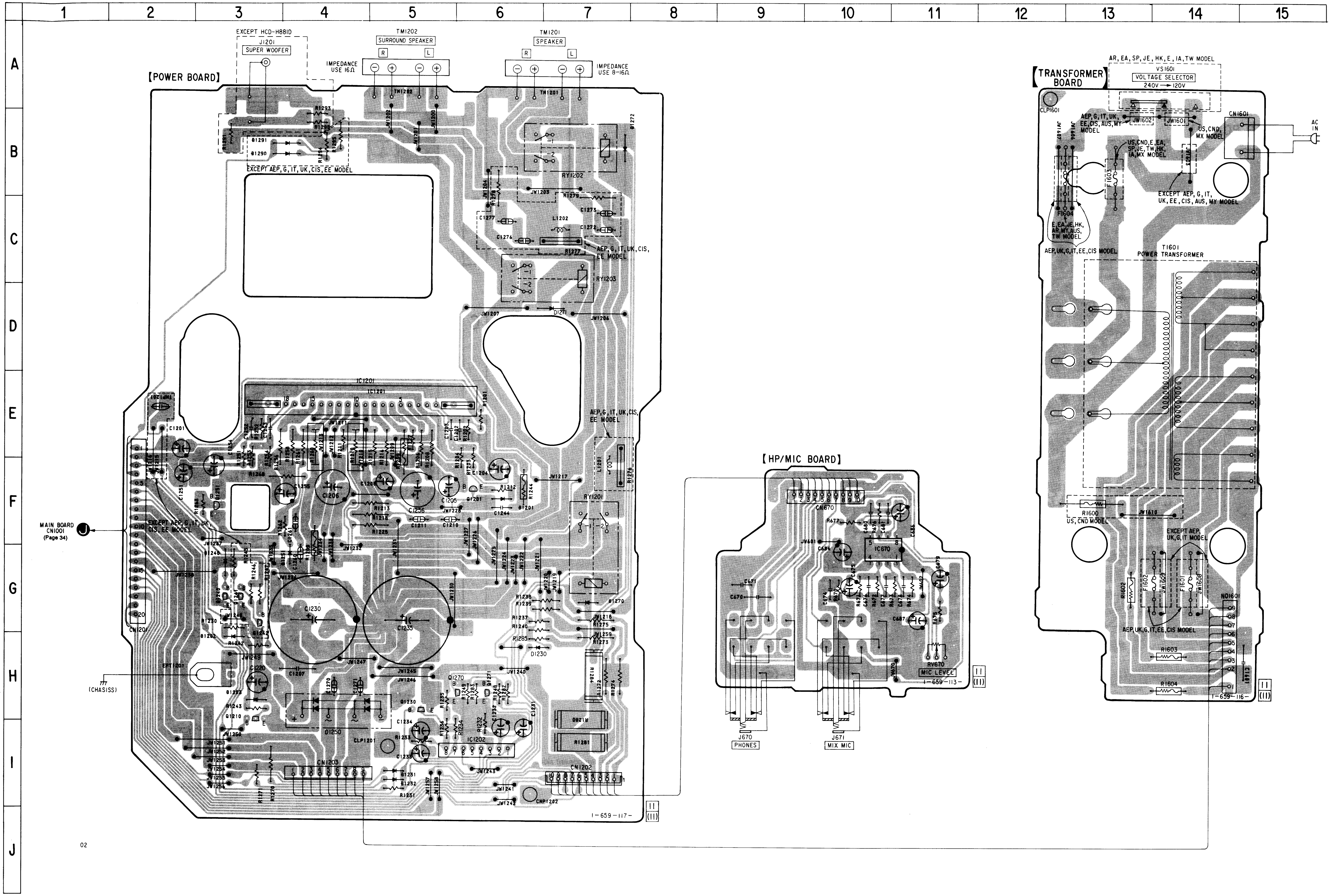
g
bean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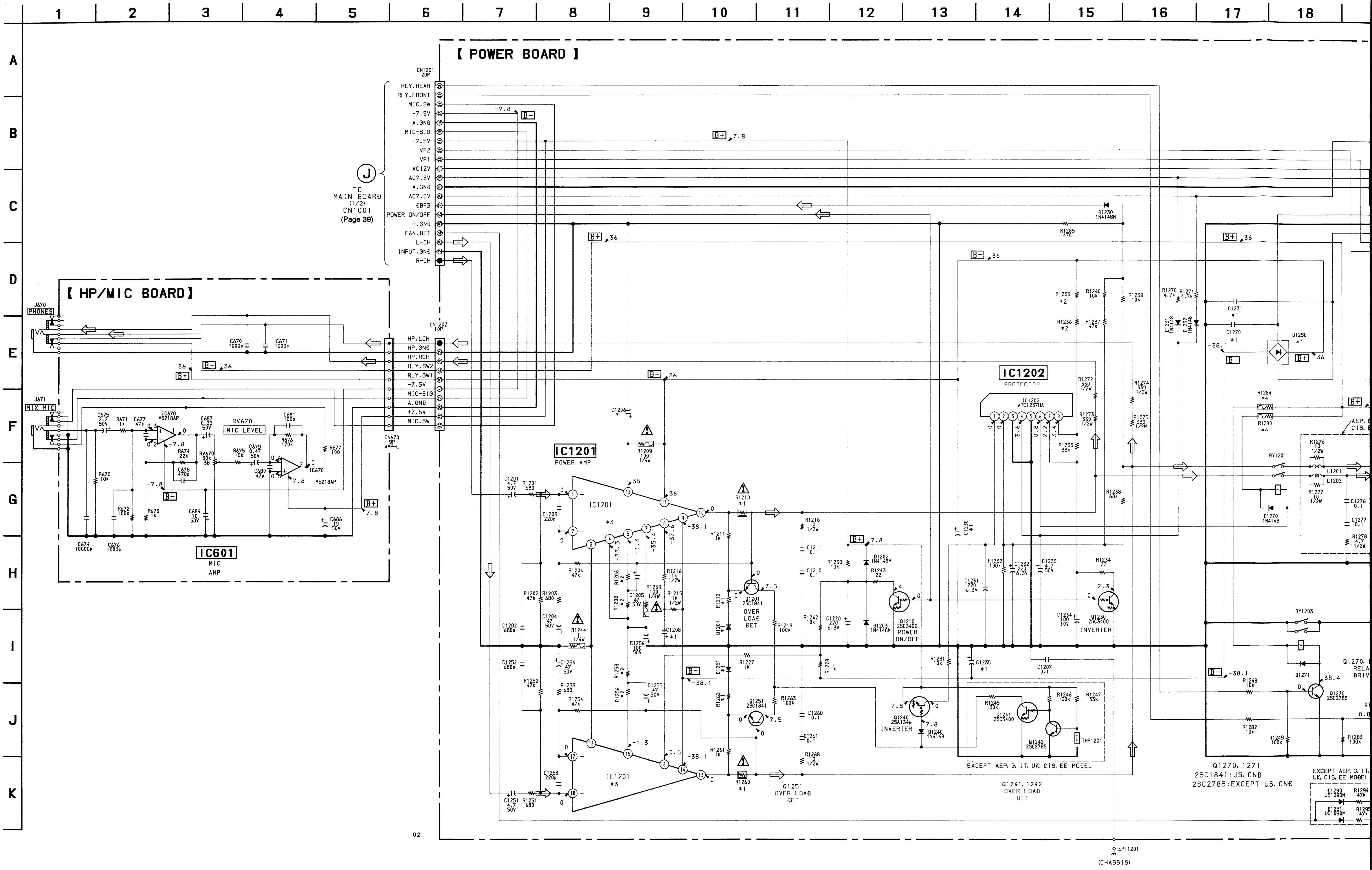
F
G
H
I
J
【POWER BOARD】
EXCEPT HCD-H881O
J1201
SUPER WOOFER
TM1202
SURROUND SPEAKER
R
L
IMPEDANCE USE 16Ω
TM1201
SPEAKER
IMPEDANCE USE 8–16Ω
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
RY1202
RY1203
AEP, G, IT, UK, CIS, EE MODEL
IC1201
IC1202
RY1201
C1230
C1235
CN1201
CN1202
CN1203
CLP1201
CNP1202
EPT1201
(CHASSIS)
MAIN BOARD CN1001 (Page 34)
J
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
1-659-117-
11
(11)
【HP/MIC BOARD】
CN670
IC670
J670
PHONES
J671
MIX MIC
RV670
MIC LEVEL
1-659-113-
【TRANSFORMER BOARD】
AR, EA, SP, JE, HK, E, IA, TW MODEL
VS1601
VOLTAGE SELECTOR
240V ⟷ 120V
CLP1601
AEP, G, IT, UK, EE, CIS, AUS, MY MODEL
US, CND, MX MODEL
US, CND, E, EA, SP, JE, TW, HK, IA, MX MODEL
E, EA, JE, HK, AR, MY, AUS, TW MODEL
EXCEPT AEP, G, IT, UK, EE, CIS, AUS, MY MODEL
AEP, UK, G, IT, EE, CIS MODEL
CN1601
AC IN
T1601
POWER TRANSFORMER
R1600
US, CND MODEL
EXCEPT AEP, UK, G, IT MODEL
AEP, UK, G, IT, EE, CIS MODEL
NO1601
R1603
R1604
1-659-116-
02

6-15. SCHEMATIC DIAGRAM – POWER SECTION –

- Refer to page 60 for note.
- Refer to page 73 for IC Block Diagrams.


【 POWER BOARD 】
【 HP/MIC BOARD】
CN1201 20P
RLY.REAR
RLY.FRONT
MIC.SW
-7.5V
A.GND
MIC-SIG
+7.5V
VF2
VF1
AC12V
AC7.5V
A.GND
AC7.5V
DBFB
POWER ON/OFF
P.GND
FAN.DET
L-CH
INPUT.GND
R-CH
J
TO MAIN BOARD (1/2) CN1001
(Page 39)
CN1202 10P
HP.LCH
HP.GND
HP.RCH
RLY.SW2
RLY.SW1
-7.5V
MIC-SIG
A.GND
+7.5V
MIC.SW
CN670 9P AMP-L
J670 PHONES
J671 MIX MIC
IC670 M5218AP
RV670 MIC LEVEL
IC601 MIC AMP
IC1201 POWER AMP
IC1202 PROTECTOR
IC1202 μPC1237HA
Q1201 2SC1841 OVER LOAD DET
Q1210 2SC3400 POWER ON/OFF
Q1230 2SC3400 INVERTER
Q1240 2SA1346 INVERTER
Q1241 2SC3400
Q1242 2SC2785
Q1251 2SC1841
Q1251 OVER LOAD DET
Q1241, 1242 OVER LOAD DET
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
Q1270, 1271 2SC1841 : US, CND 2SC2785 : EXCEPT US, CND
Q1270 2SC2785
RY1201
RY1203
L1201
L1202
D1250
THP1201
EPT1201 (CHASSIS)
02
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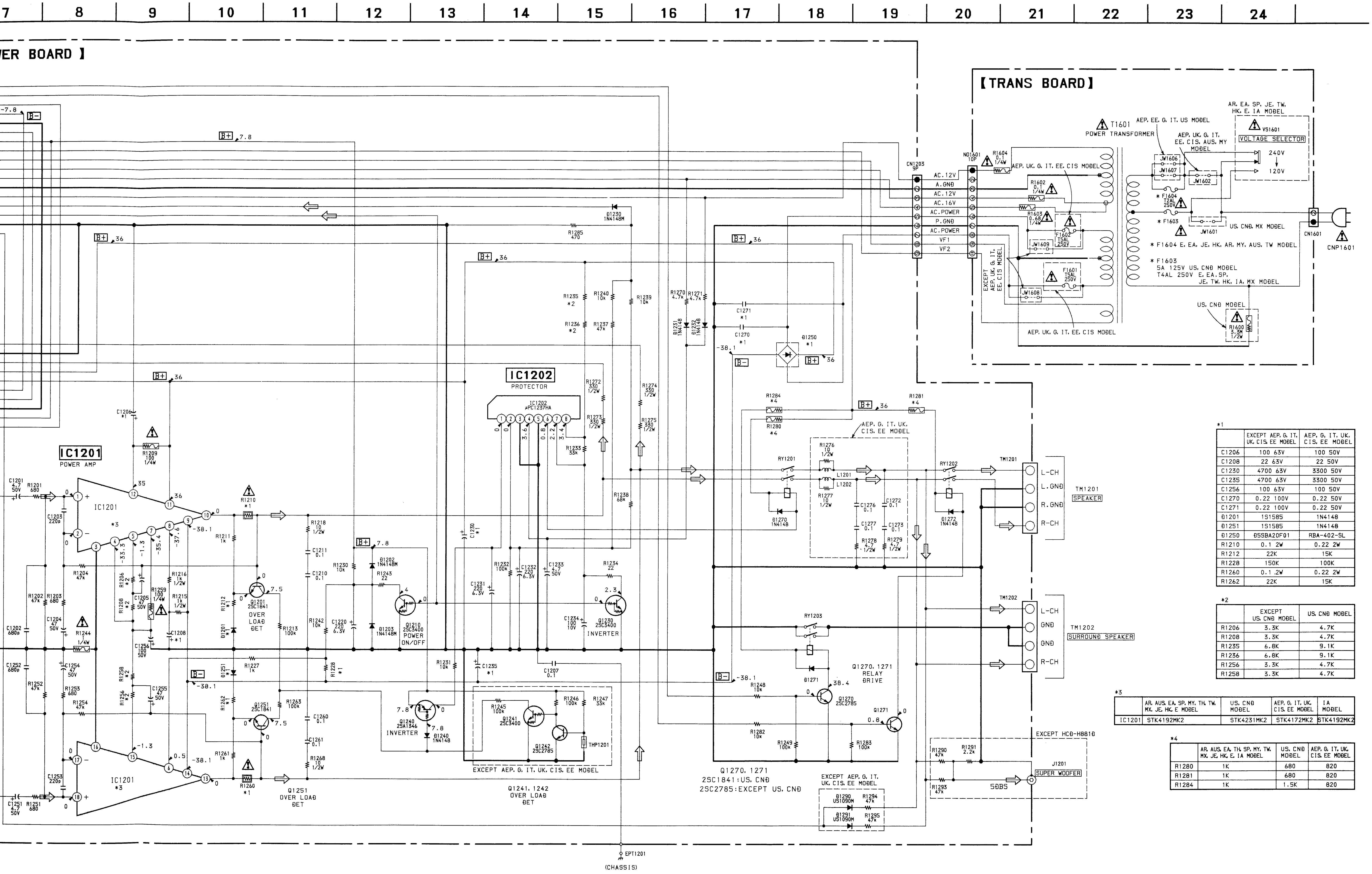
J
K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23
24
ER BOARD 】
【TRANS BOARD】
IC1201
POWER AMP
IC1202
PROTECTOR
IC1202
#PC1237HA
T1601
POWER TRANSFORMER
VS1601
VOLTAGE SELECTOR
240V
120V
AR, EA, SP, JE, TW, HK, E, IA MODEL
AEP, EE, G, IT, US MODEL
AEP, UK, G, IT, EE, CIS, AUS, MY MODEL
AEP, UK, G, IT, EE, CIS MODEL
US, CND, MX MODEL
US, CND MODEL
* F1604 E, EA, JE, HK, AR, MY, AUS, TW MODEL
* F1603
5A 125V US, CND MODEL
T4AL 250V E, EA, SP, JE, TW, HK, IA, MX MODEL
CN1601
CNP1601
CN1203
9P
NO1601
10P
AC.12V
A.GND
AC.12V
AC.16V
AC.POWER
P.GND
AC.POWER
VF1
VF2
EXCEPT AEP, UK, G, IT, EE, CIS MODEL
TM1201
SPEAKER
L-CH
L.GND
R.GND
R-CH
TM1202
SURROUND SPEAKER
L-CH
GND
GND
R-CH
J1201
SUPER WOOFER
SUBS
EXCEPT HCD-H881D
RY1201
RY1202
RY1203
Q1270, 1271
RELAY DRIVE
Q1270, 1271
2SC1841:US, CND
2SC2785:EXCEPT US, CND
Q1201
2SC1841
OVER LOAD DET
Q1210
2SC3400
POWER ON/OFF
Q1230
2SC3400
INVERTER
Q1240
2SA1346
INVERTER
Q1251
2SC1841
Q1251
OVER LOAD DET
Q1241
2SC3400
Q1242
2SC2785
Q1241, 1242
OVER LOAD DET
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
EXCEPT AEP, G, IT, UK, CIS, EE MODEL
AEP, G, IT, UK, CIS, EE MODEL
THP1201
EPT1201
(CHASSIS)
B+ 7.8
B+ 36
B- -38.1
-7.8
-38.1
D1230
1N4148M
D1202
1N4148M
D1203
1N4148M
D1240
1N4148
D1270
1N4148
D1272
1N4148
D1250
D1290
US1090M
D1291
US1090M
L1201
L1202

*1

	EXCEPT AEP, G, IT, UK, CIS, EE MODEL	AEP, G, IT, UK, CIS, EE MODEL
C1206	100 63V	100 50V
C1208	22 63V	22 50V
C1230	4700 63V	3300 50V
C1235	4700 63V	3300 50V
C1256	100 63V	100 50V
C1270	0.22 100V	0.22 50V
C1271	0.22 100V	0.22 50V
D1201	1S1585	1N4148
D1251	1S1585	1N4148
D1250	D5SBA20F01	RBA-402-SL
R1210	0.1 2W	0.22 2W
R1212	22K	15K
R1228	150K	100K
R1260	0.1 .2W	0.22 2W
R1262	22K	15K

*2

	EXCEPT US, CND MODEL	US, CND MODEL
R1206	3.3K	4.7K
R1208	3.3K	4.7K
R1235	6.8K	9.1K
R1236	6.8K	9.1K
R1256	3.3K	4.7K
R1258	3.3K	4.7K

*3

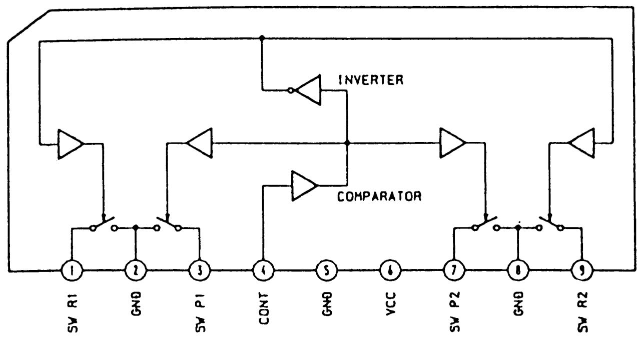
	AR, AUS, EA, SP, MY, TH, TW, MX, JE, HK, E MODEL	US, CND MODEL	AEP, G, IT, UK, CIS, EE MODEL	IA MODEL
IC1201	STK4192MK2	STK4231MK2	STK4172MK2	STK4192MK2

*4

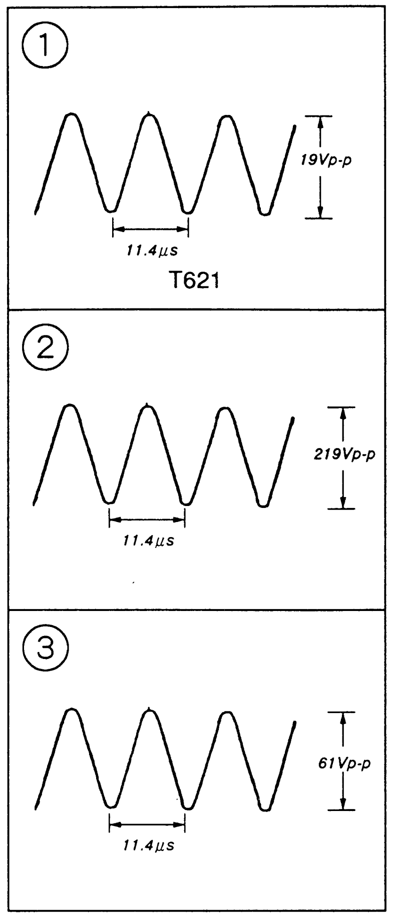
	AR, AUS, EA, TH, SP, MY, TW, MX, JE, HK, E, IA MODEL	US, CND MODEL	AEP, G, IT, UK, CIS, EE MODEL
R1280	1K	680	820
R1281	1K	680	820
R1284	1K	1.5K	820

• IC BLOCK DIAGRAM

IC602 μPC1330HA


INVERTER
COMPARATOR
SW R1
GND
SW P1
CONT
GND
VCC
SW P2
GND
SW R2

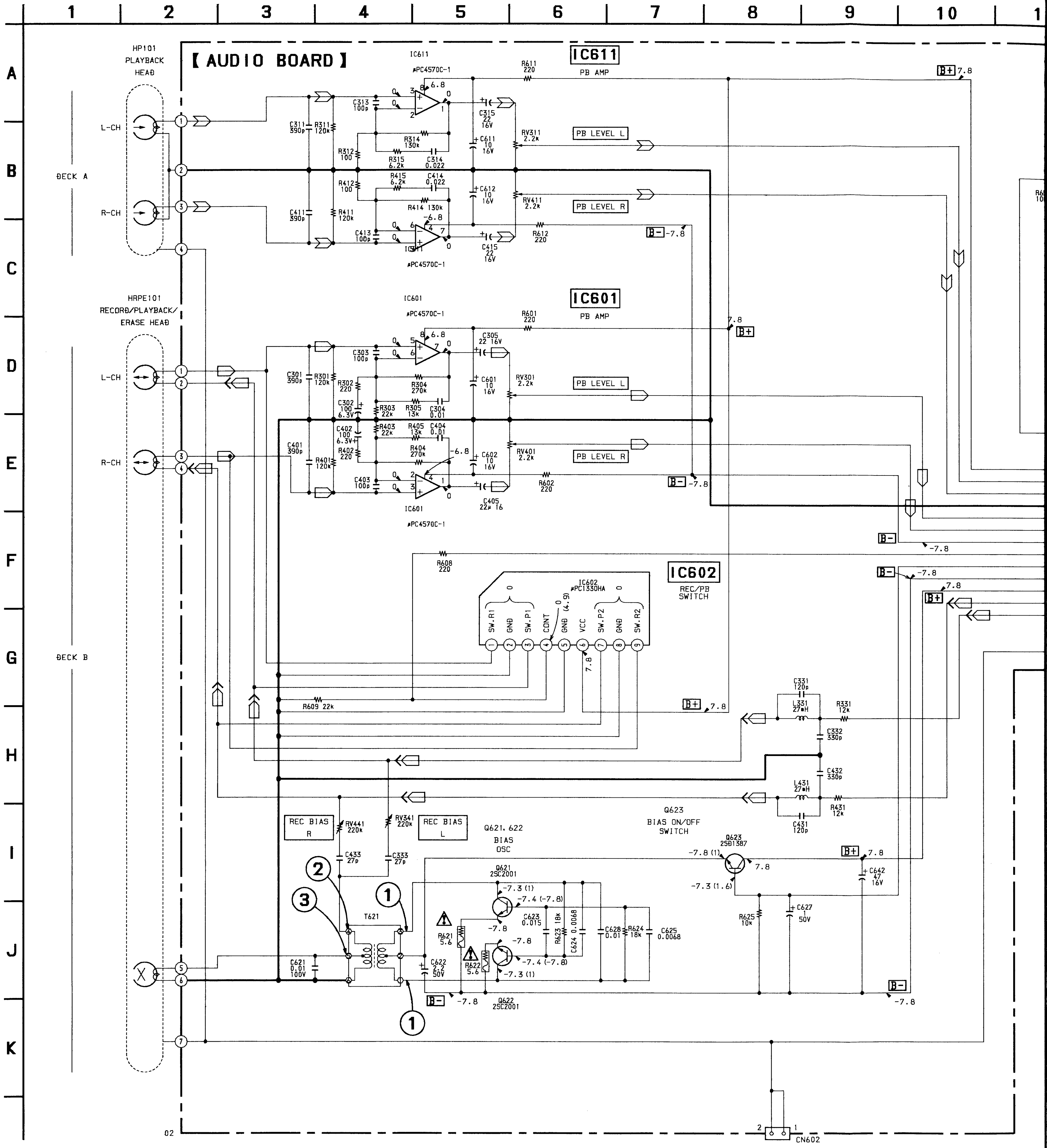
• WAVEFORMS – AUDIO SECTION –



Note :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- B+ : B+ Line
- B– : B – Line
- ☐ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  - no mark : PLAY (TC)
  - ( ) : REC
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⊐ : PB (DECK A)
  - ⊐ : PB (DECK B)
  - ⊐ : REC (DECK B)

6-16. SCHEMATIC DIAGRAM – AUDIO SECTION –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A
B
C
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G
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J
K
【AUDIO BOARD】
HP101
PLAYBACK
HEAD
DECK A
L-CH
R-CH
HRPE101
RECORD/PLAYBACK/
ERASE HEAD
DECK B
IC611
μPC4570C-1
IC611
PB AMP
IC601
μPC4570C-1
IC601
PB AMP
IC602
REC/PB
SWITCH
IC602
μPC1330HA
SW.R1
GND
SW.P1
CONT
GND
VCC
SW.P2
GND
SW.R2
PB LEVEL L
PB LEVEL R
RV311 2.2k
RV411 2.2k
RV301 2.2k
RV401 2.2k
R611 220
R612 220
R601 220
R602 220
R608 220
R609 22k
REC BIAS R
REC BIAS L
RV441 220k
RV341 220k
C433 27p
C333 27p
T621
Q621, 622
BIAS
OSC
Q621 2SC2001
Q622 2SC2001
Q623
BIAS ON/OFF
SWITCH
Q623 2SB1387
R621 5.6
R622 5.6
R623 18k
R624 18k
R625 10k
C621 0.01 100V
C622 2.2 50V
C623 0.015
C624 0.0068
C625 0.0068
C627 1 50V
C628 0.01
C642 47 16V
C331 120p
L331 27mH
R331 12k
C332 330p
C432 330p
L431 27mH
R431 12k
C431 120p
B+ 7.8
B– -7.8
CN602
02

ECTION –

Vp-p

Vp-p

oted. pF: μ μ F
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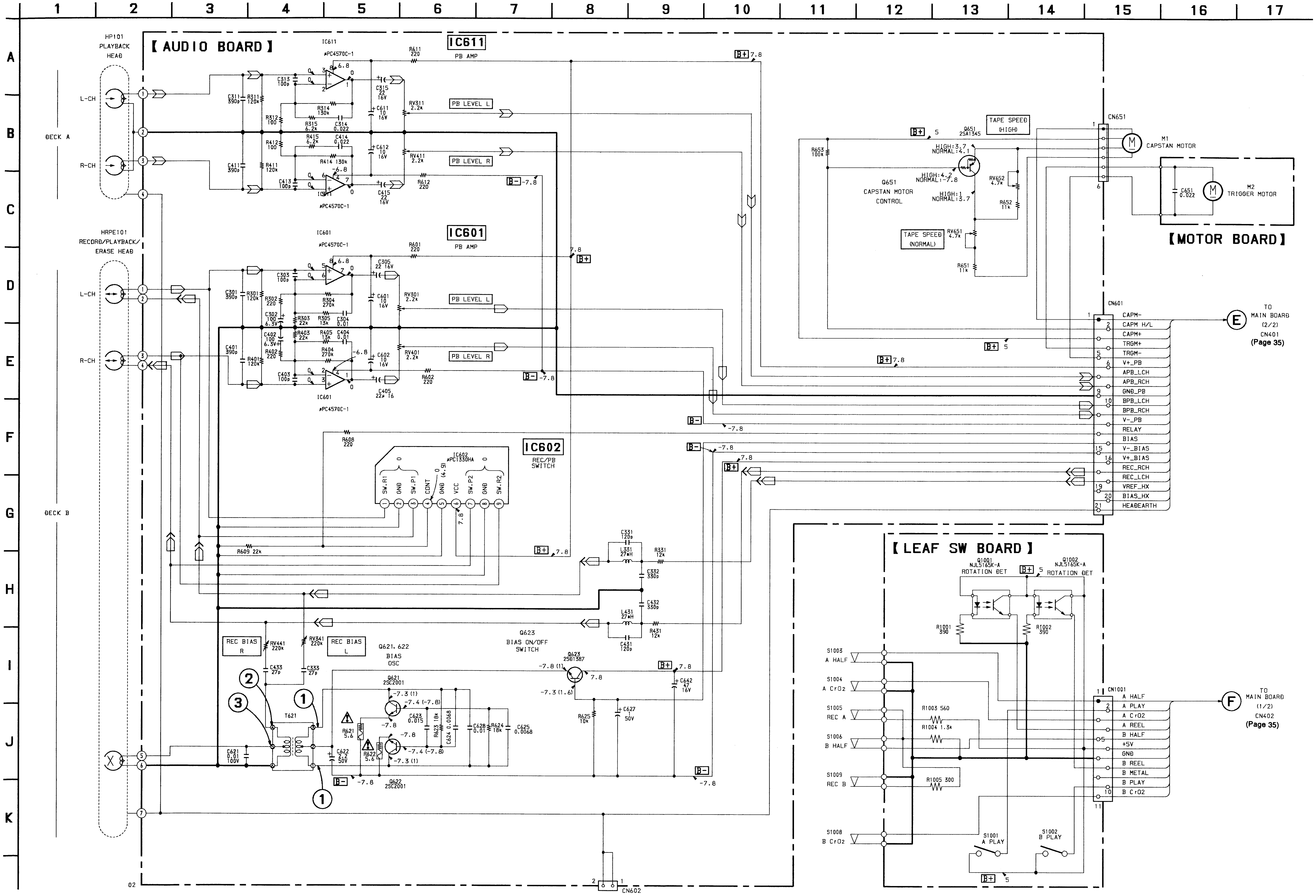
al production

6-16. SCHEMATIC DIAGRAM – AUDIO SECTION –



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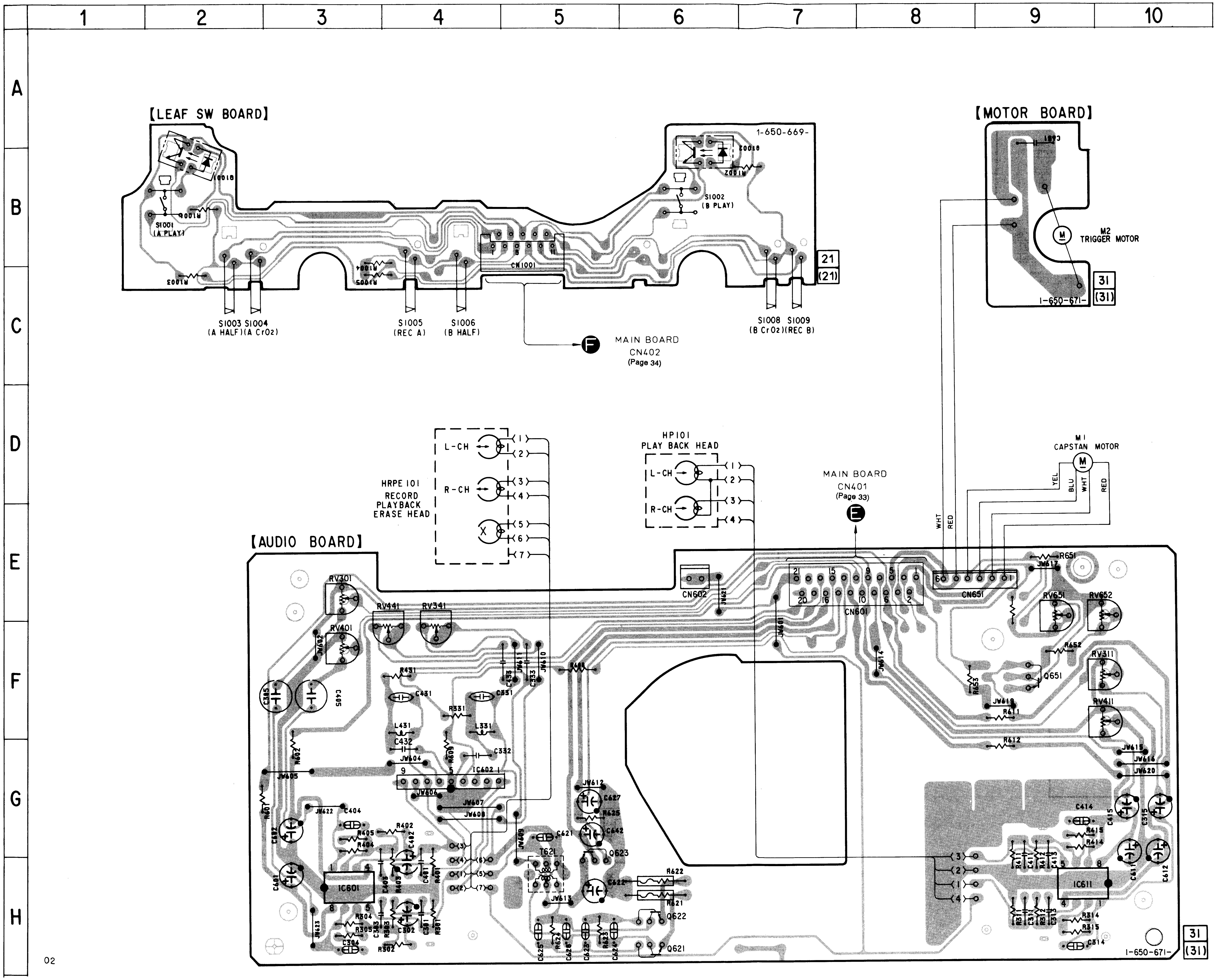
F
G
H
I
J
K
【AUDIO BOARD】
HP101
PLAYBACK
HEAD
L-CH
R-CH
DECK A
HRPE101
RECORD/PLAYBACK/
ERASE HEAD
DECK B
IC611
μPC4570C-1
IC611
PB AMP
R611
220
C313
100p
C311
390p
R311
120k
R314
130k
R312
100
R315
6.2k
C314
0.022
R415
6.2k
C414
0.022
R412
100
R414 130k
C411
390p
R411
120k
C413
100p
C315
22
16V
C611
10
16V
C612
10
16V
C415
22
16V
RV311
2.2k
RV411
2.2k
R612
220
PB LEVEL L
PB LEVEL R
B+ 7.8
B- -7.8
IC601
PB AMP
R601
220
C303
100p
C301
390p
R301
120k
R302
220
R304
270k
C305
22 16V
C601
10
16V
RV301
2.2k
C302
100
6.3V
R303
22k
R305
13k
C304
0.01
C402
100
6.3V
R403
22k
R405
13k
C404
0.01
R402
220
R404
270k
C602
10
16V
RV401
2.2k
C401
390p
R401
120k
C403
100p
R602
220
C405
22μ 16
μPC4570C-1
R608
220
IC602
μPC1330HA
REC/PB
SWITCH
SW.R1
GND
SW.P1
CONT
GND
VCC
SW.P2
GND
SW.R2
(4.9)
R609 22k
C331
120p
L331
27mH
R331
12k
C332
330p
C432
330p
L431
27mH
R431
12k
C431
120p
REC BIAS
R
RV441
220k
RV341
220k
REC BIAS
L
C433
27p
C333
27p
Q621, 622
BIAS
OSC
T621
Q621
2SC2001
Q622
2SC2001
R621
5.6
R622
5.6
C623
0.015
R623 18k
C624 0.0068
C628
0.01
R624
18k
C625
0.0068
C621
0.01
100V
C622
2.2
50V
-7.3 (1)
-7.4 (-7.8)
-7.8
Q623
BIAS ON/OFF
SWITCH
Q623
2SB1387
-7.8 (1)
-7.3 (1.6)
R625
10k
C627
1
50V
C642
47
16V
CN602
Q651
2SA1345
TAPE SPEED
(HIGH)
R653
100k
HIGH:3.7
NORMAL:4.1
HIGH:4.2
NORMAL:-7.8
HIGH:1
NORMAL:3.7
Q651
CAPSTAN MOTOR
CONTROL
RV652
4.7k
R652
11k
TAPE SPEED
(NORMAL)
RV651
4.7k
R651
11k
CN651
M1
CAPSTAN MOTOR
C651
0.022
M2
TRIGGER MOTOR
【MOTOR BOARD】
CN601
CAPM-
CAPM H/L
CAPM+
TRGM+
TRGM-
V+_PB
APB_LCH
APB_RCH
GND_PB
BPB_LCH
BPB_RCH
V-_PB
RELAY
BIAS
V-_BIAS
V+_BIAS
REC_RCH
REC_LCH
VREF_HX
BIAS_HX
HEADEARTH
TO
MAIN BOARD
(2/2)
CN401
(Page 35)
【LEAF SW BOARD】
Q1001
NJL5165K-A
ROTATION DET
Q1002
NJL5165K-A
ROTATION DET
R1001
390
R1002
390
S1003
A HALF
S1004
A CrO2
S1005
REC A
S1006
B HALF
S1009
REC B
S1008
B CrO2
R1003 560
R1004 1.3k
R1005 300
S1001
A PLAY
S1002
B PLAY
CN1001
A HALF
A PLAY
A CrO2
A REEL
B HALF
+5V
GND
B REEL
B METAL
B PLAY
B CrO2
TO
MAIN BOARD
(1/2)
CN402
(Page 35)
02

6-17. PRINTED WIRING BOARDS – AUDIO SECTION –


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
[LEAF SW BOARD]
1-650-669-
S1001 (A PLAY)
S1002 (B PLAY)
S1003 S1004 (A HALF) (A CrO2)
S1005 (REC A)
S1006 (B HALF)
S1008 S1009 (B CrO2) (REC B)
CN1001
21
(21)
MAIN BOARD CN402 (Page 34)
F
[MOTOR BOARD]
M2 TRIGGER MOTOR
1-650-671-
31
(31)
HRPE101 RECORD PLAYBACK ERASE HEAD
L-CH
R-CH
HP101 PLAY BACK HEAD
MAIN BOARD CN401 (Page 33)
E
M1 CAPSTAN MOTOR
YEL
BLU
WHT
RED
[AUDIO BOARD]
RV301
RV441
RV341
RV401
RV651
RV652
RV311
RV411
CN602
CN601
CN651
IC601
IC602
IC611
Q621
Q622
Q623
Q651
T621
1-650-671-
31
(31)
02

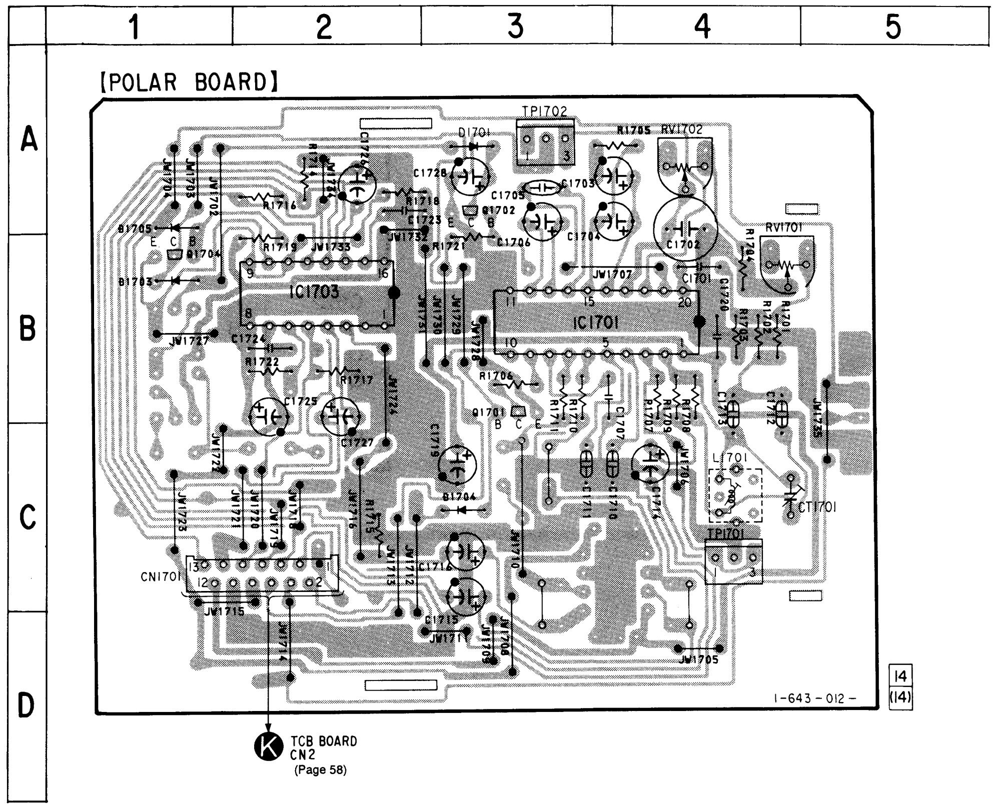
● SEMICONDUCTOR LOCATION

Ref. No.	Location
IC601 IC602 IC611	H-3 G-4 H-9
Q621 Q622 Q623 Q651 Q1001	H-9 H-9 H-5 F-9 B-2
Q1002	B-6

Note:

- ○— : parts extracted from the component side.
- ░░ : Pattern on the side which is seen.

6-18. PRINTED WIRING BOARDS – POLAR SECTION –


1
2
3
4
5
A
B
C
D
[POLAR BOARD]
IC1703
IC1701
TP1702
TP1701
RV1701
RV1702
CN1701
CT1701
L1701
D1701
D1703
D1704
D1705
Q1701
Q1702
Q1704
1-643-012-
14
(14)
K
TCB BOARD
CN2
(Page 58)

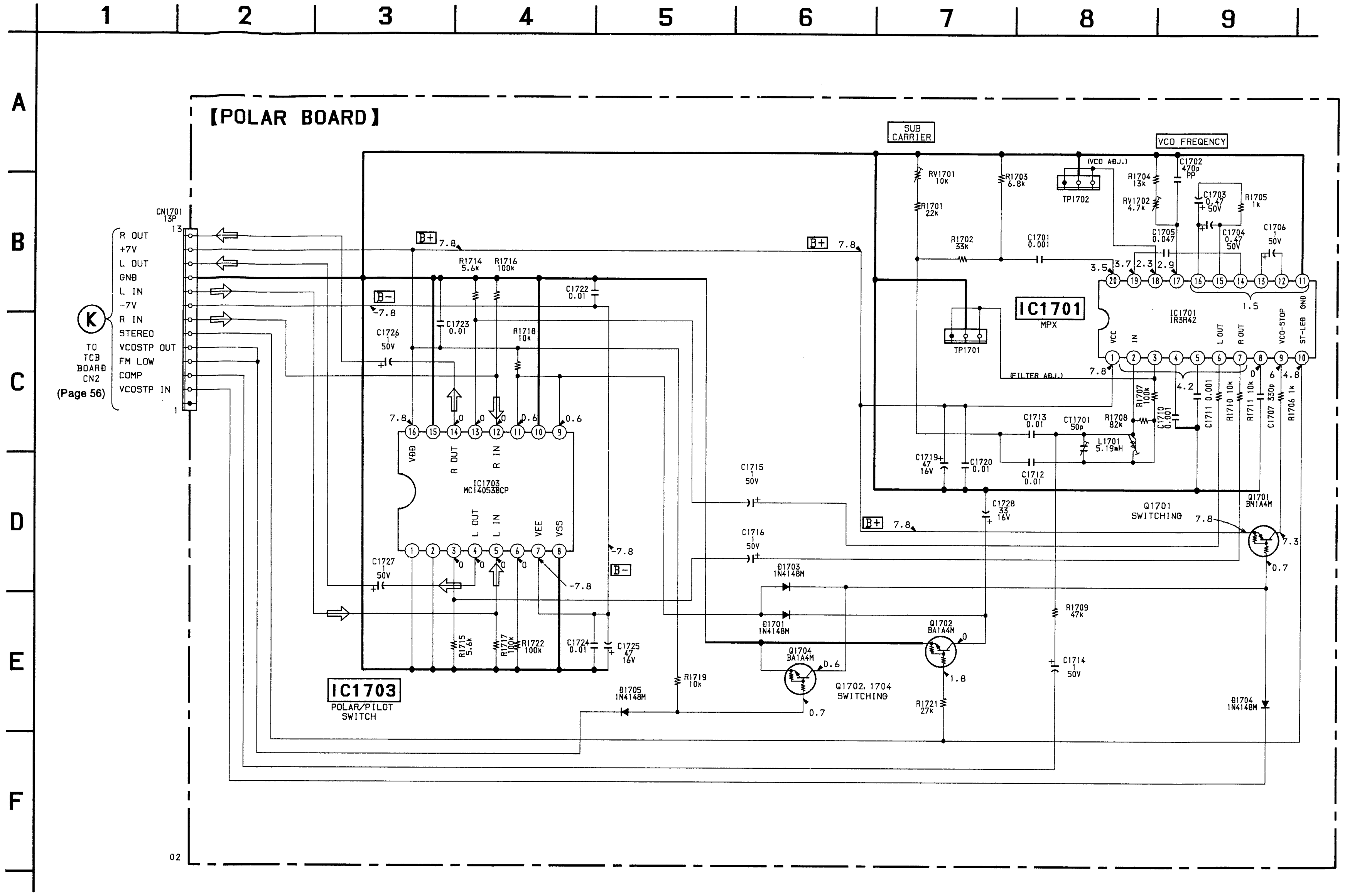
Note:

- ○— : parts extracted from the component side.
- ░░░ : Pattern on the side which is seen.

• SEMICONDUCTOR LOCATION

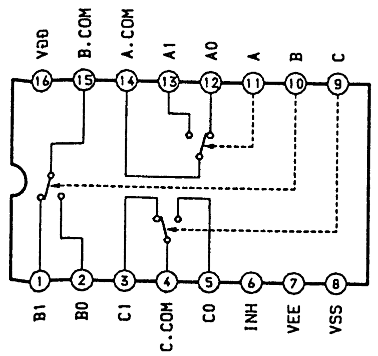
Ref. No.	Location
D1701	A - 3
D1703	B - 1
D1704	C - 3
D1705	A - 1
IC1701	B - 3
IC1703	A - 3
Q1701	B - 3
Q1702	B - 2
Q1704	B - 1

6-19. SCHEMATIC DIAGRAM – POLAR SECTION –


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
[POLAR BOARD]
CN1701
13P
R OUT
+7V
L OUT
GND
L IN
-7V
R IN
STEREO
VCOSTP OUT
FM LOW
COMP
VCOSTP IN
K
TO
TCB
BOARD
CN2
(Page 56)
SUB CARRIER
VCO FREQENCY
VCO ADJ.
IC1701
MPX
IC1701
IR3R42
FILTER ADJ.
TP1701
TP1702
IC1703
MC14053BCP
IC1703
POLAR/PILOT
SWITCH
Q1701
SWITCHING
Q1702, 1704
SWITCHING
B+
B−
7.8
-7.8
0.6
0.7
1.8
7.3
1.5
4.2
4.8

• IC BLOCK DIAGRAM

IC1703 μPD4053BC


VDD
B.COM
A.COM
A1
A0
A
B
C
16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8
B1
B0
C1
C.COM
C0
INH
VEE
VSS

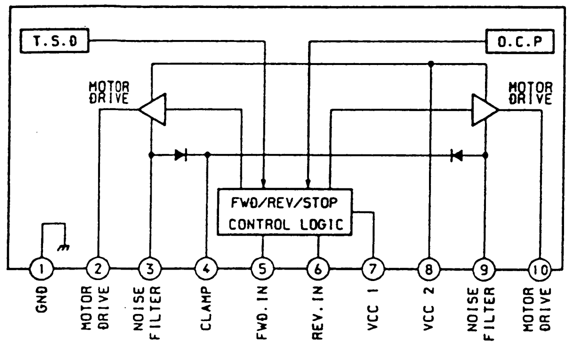
Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- **B+** : B+ Line
- **B −** : B − Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.

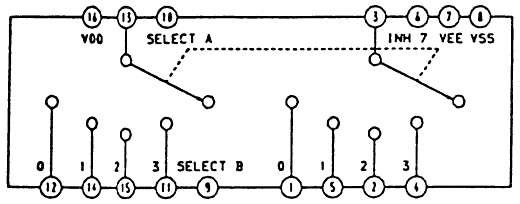
• IC BLOCK DIAGRAMS

– MAIN SECTION –

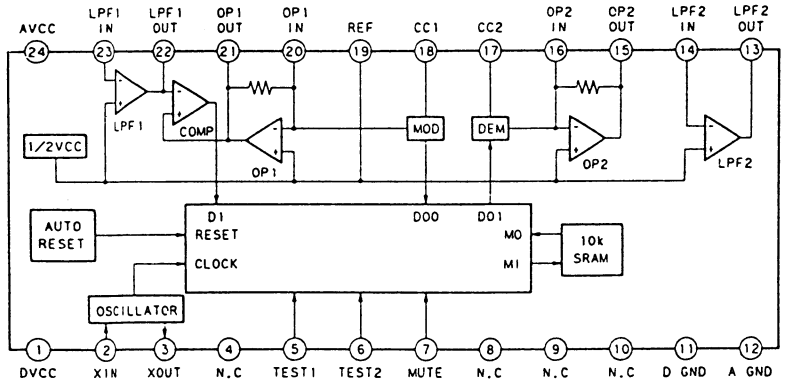
IC402 LB1641


T.S.D
O.C.P
MOTOR DRIVE
MOTOR DRIVE
FWD/REV/STOP CONTROL LOGIC
1 GND
2 MOTOR DRIVE
3 NOISE FILTER
4 CLAMP
5 FWD.IN
6 REV.IN
7 VCC 1
8 VCC 2
9 NOISE FILTER
10 MOTOR DRIVE

IC802 MC14052BCP

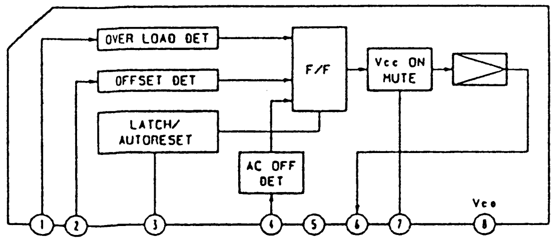

16 VDD
10 SELECT A
9
6 INH
7 VEE
8 VSS
0 1 2 3 SELECT B 0 1 2 3
12 14 15 11 9 1 5 2 4 3

IC806 M65843FP


24 AVCC
23 LPF1 IN
22 LPF1 OUT
21 OP1 OUT
20 OP1 IN
19 REF
18 CC1
17 CC2
16 OP2 IN
15 OP2 OUT
14 LPF2 IN
13 LPF2 OUT
1/2VCC
LPF1
COMP
OP1
MOD
DEM
OP2
LPF2
AUTO RESET
DI
RESET
CLOCK
DOO
DOI
MO
MI
10k SRAM
OSCILLATOR
1 DVCC
2 XIN
3 XOUT
4 N.C
5 TEST1
6 TEST2
7 MUTE
8 N.C
9 N.C
10 N.C
11 D GND
12 A GND

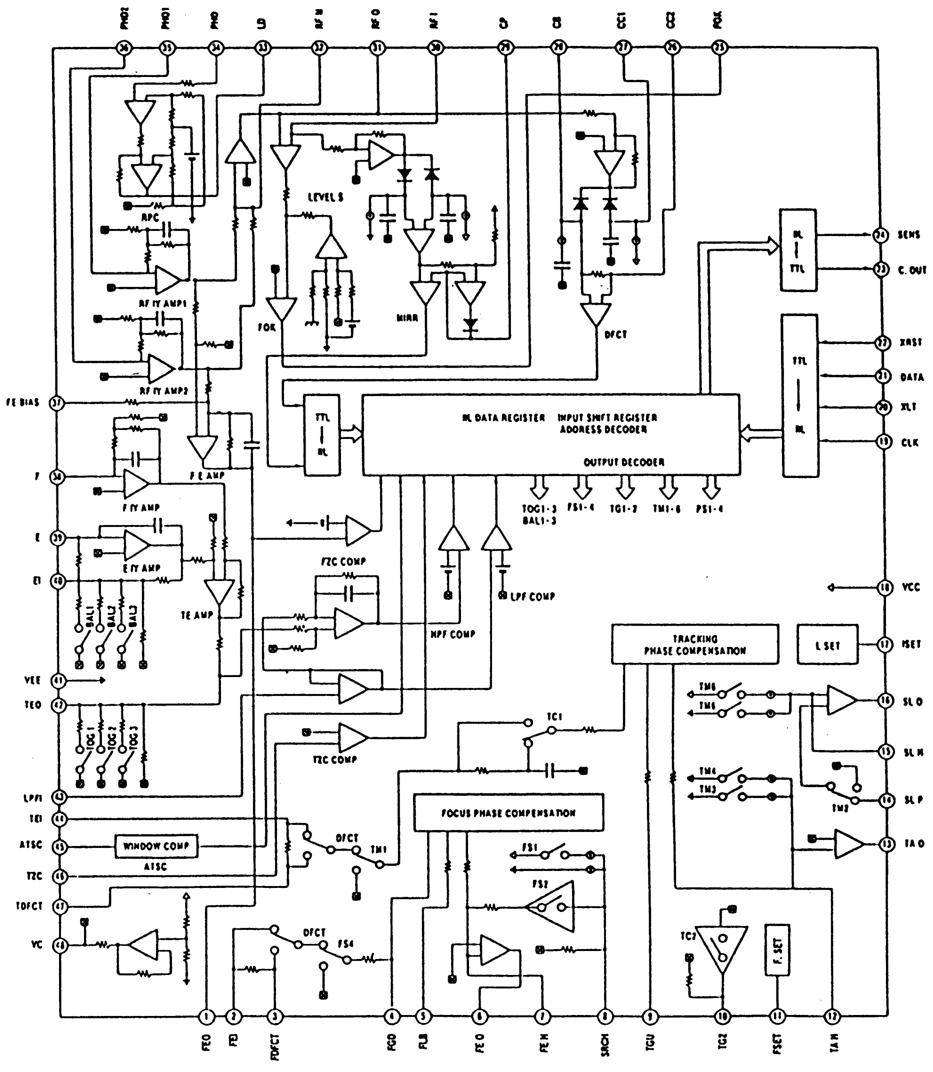
– POWER SECTION –

IC1202 μPC1237HA

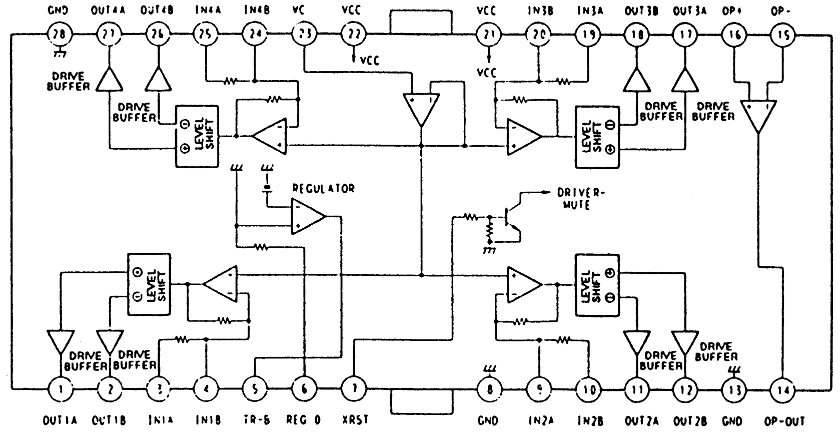

OVER LOAD DET
OFFSET DET
LATCH/ AUTORESET
AC OFF DET
F/F
Vcc ON MUTE
Vcc
1 2 3 4 5 6 7 8

– BD SECTION –

IC101 CXA1782BQ

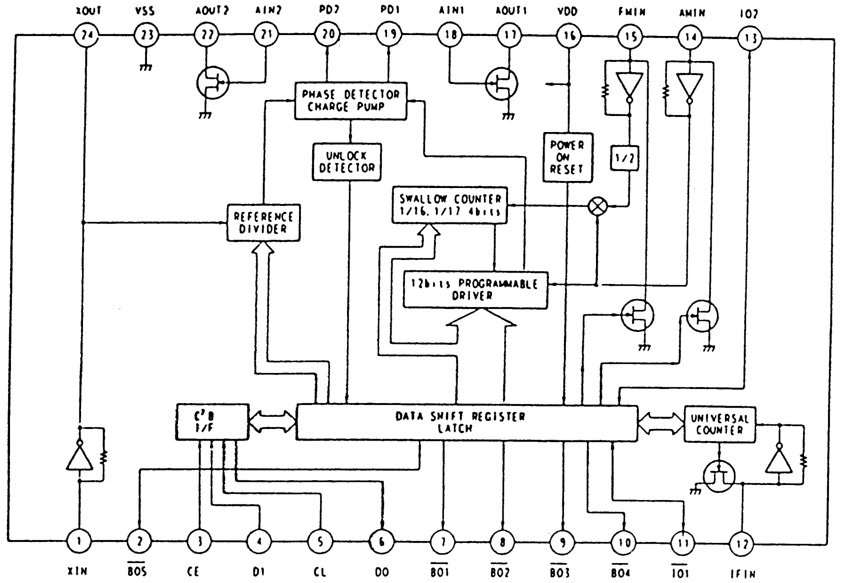

36 PHD2
35 PHD1
34 PHD
33 LD
32 RF M
31 RF O
30 RF I
29 CP
28 CB
27 CC1
26 CC2
25 FOK
APC
RF I-V AMP1
RF I-V AMP2
LEVEL S
FOK
MIRR
DFCT
FE AMP
F I-V AMP
E I-V AMP
TE AMP
TZC COMP
HPF COMP
LPF COMP
ML DATA REGISTER INPUT SHIFT REGISTER ADDRESS DECODER
OUTPUT DECODER
TOG1-3 FS1-4 TG1-2 TM1-6 PS1-4 BAL1-3
TTL ML
ML TTL
TRACKING PHASE COMPENSATION
I SET
WINDOW COMP
ATSC
FOCUS PHASE COMPENSATION
TM1 TM2 TM3 TM4 TM5 TM6
TG1 TG2
FS1 FS2 FS4
F. SET
37 FE BIAS
38 F
39 E
40 EI
41 VEE
42 TEO
43 LPFI
44 TEI
45 ATSC
46 TZC
47 TDFCT
48 VC
24 SENS
23 C.OUT
22 XRST
21 DATA
20 XLT
19 CLK
18 VCC
17 ISET
16 SL O
15 SL M
14 SL P
13 TA O
1 FEO
2 FEI
3 FDFCT
4 FGD
5 FLB
6 FE O
7 FE M
8 SRCH
9 TGU
10 TG2
11 FSET
12 TA M

IC102 BA6397FP-T1

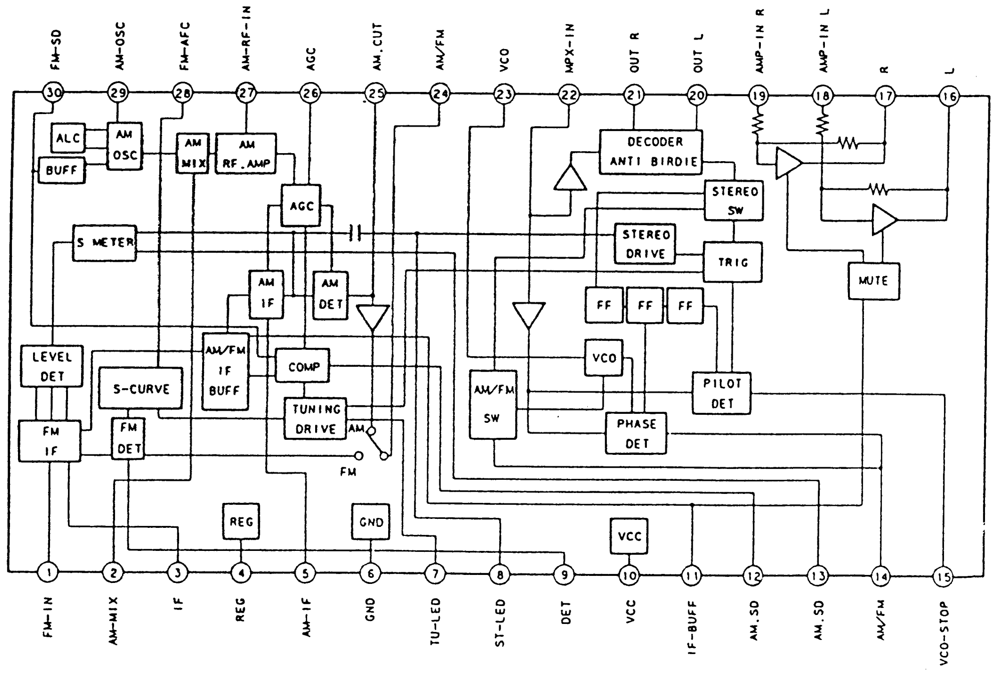

28 GND
27 OUT4A
26 OUT4B
25 IN4A
24 IN4B
23 VC
22 VCC
21 VCC
20 IN3B
19 IN3A
18 OUT3B
17 OUT3A
16 OP+
15 OP-
DRIVE BUFFER
LEVEL SHIFT
REGULATOR
DRIVER-MUTE
1 OUT1A
2 OUT1B
3 IN1A
4 IN1B
5 TR-B
6 REG O
7 XRST
8 GND
9 IN2A
10 IN2B
11 OUT2A
12 OUT2B
13 GND
14 OP-OUT

– TCB SECTION –

IC1, 21 LC72130


24 XOUT
23 VSS
22 AOUT2
21 AIN2
20 PD2
19 PD1
18 AIN1
17 AOUT1
16 VDD
15 FMIN
14 AMIN
13 IO2
PHASE DETECTOR CHARGE PUMP
UNLOCK DETECTOR
POWER ON RESET
1/2
REFERENCE DIVIDER
SWALLOW COUNTER 1/16, 1/17 4bits
12bits PROGRAMMABLE DRIVER
C²B I/F
DATA SHIFT REGISTER LATCH
UNIVERSAL COUNTER
1 XIN
2 BO5
3 CE
4 DI
5 CL
6 DO
7 BO1
8 BO2
9 BO3
10 BO4
11 IO1
12 IFIN

IC2, 41 LA1835


30 FM-SD
29 AM-OSC
28 FM-AFC
27 AM-RF-IN
26 AGC
25 AM CUT
24 AM/FM
23 VCO
22 MPX-IN
21 OUT R
20 OUT L
19 AMP-IN R
18 AMP-IN L
17 R
16 L
ALC
BUFF
AM OSC
AM MIX
AM RF AMP
AGC
DECODER ANTI BIRDIE
STEREO SW
S METER
STEREO DRIVE
TRIG
MUTE
AM IF
AM DET
FF FF FF
LEVEL DET
S-CURVE
AM/FM IF BUFF
COMP
TUNING DRIVE
AM
FM
AM/FM SW
VCO
PILOT DET
PHASE DET
FM IF
FM DET
REG
GND
VCC
1 FM-IN
2 AM-MIX
3 IF
4 REG
5 AM-IF
6 GND
7 TU-LED
8 ST-LED
9 DET
10 VCC
11 IF-BUFF
12 AM.SD
13 AM.SD
14 AM/FM
15 VCO-STOP

SECTION 7
EXPLODED VIEWS

NOTE :

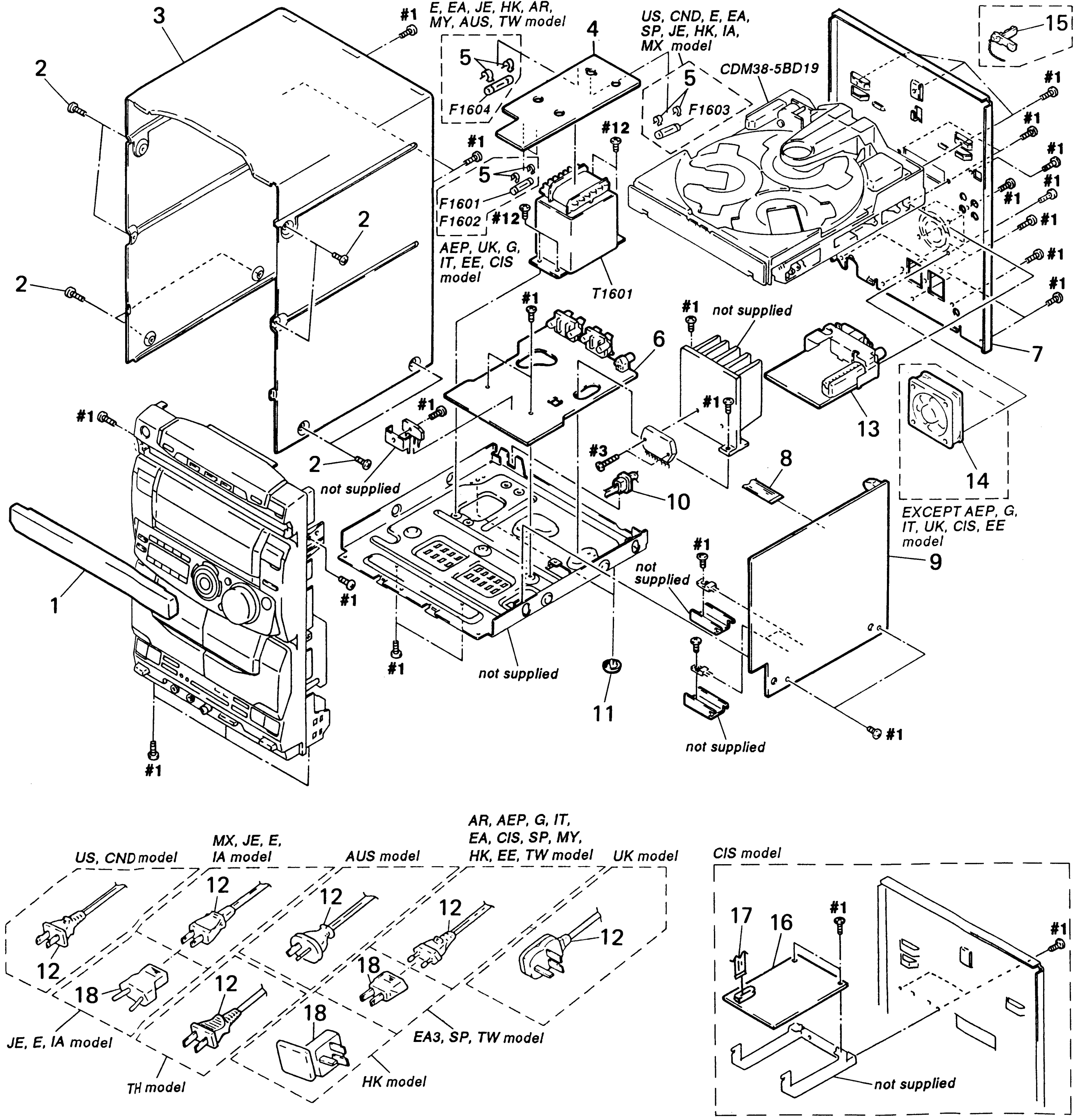
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) .... (RED)
  ↑ Parts color ↑ Cabinet's color
- Items marked " ∗ "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation

CND	: Canadian	SP	: Singapore
AUS	: Australian	HK	: Hong Kong
AR	: Argentine	JE	: Tourist
MX	: Mexican	IA	: Indonesia
TH	: Thailand	G	: German
EA3/EA4	: Saudi Arabia	IT	: Italian
MY	: Malaysia	EE	: East European
		TW	: Taiwan

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

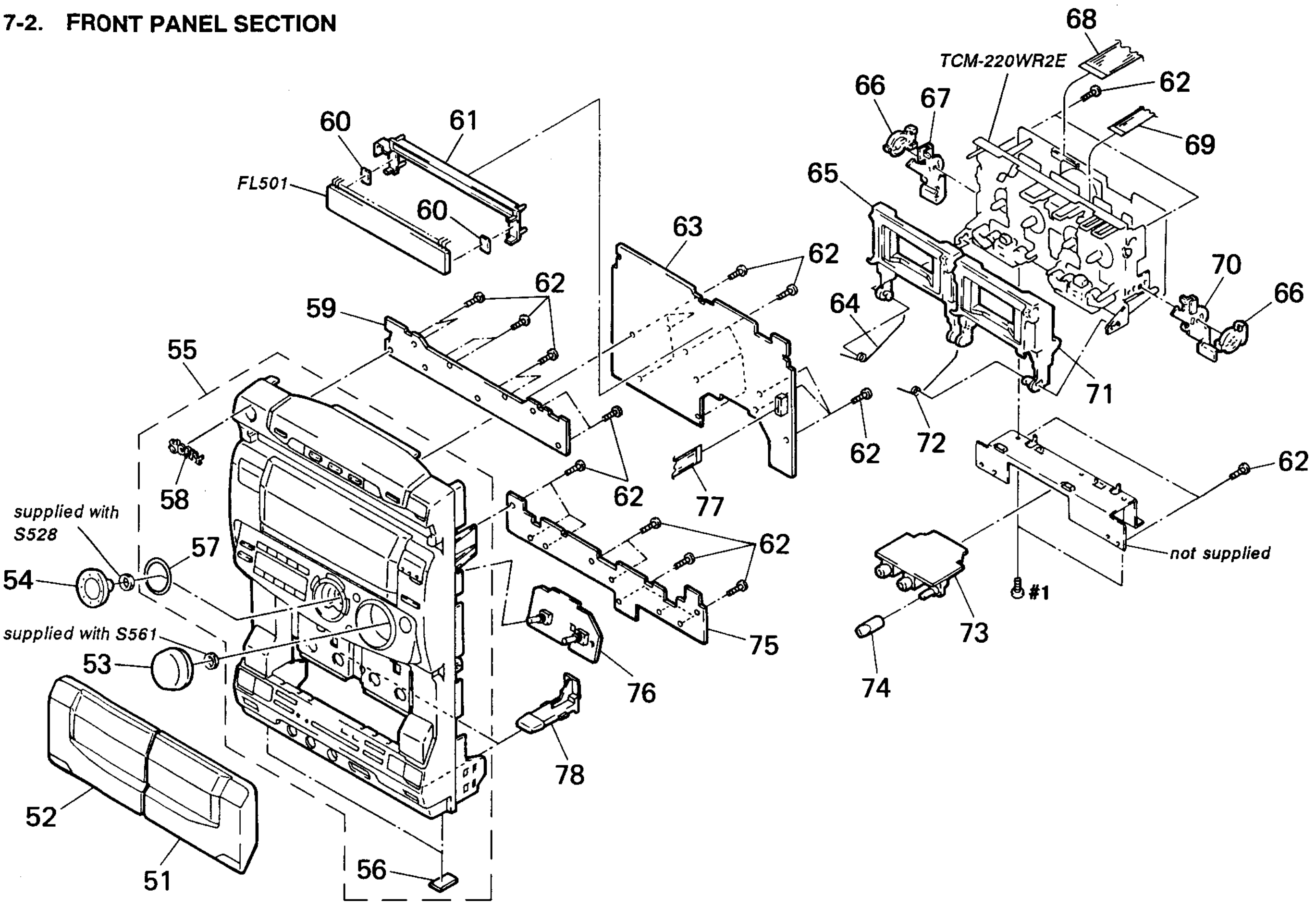
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CHASSIS SECTION



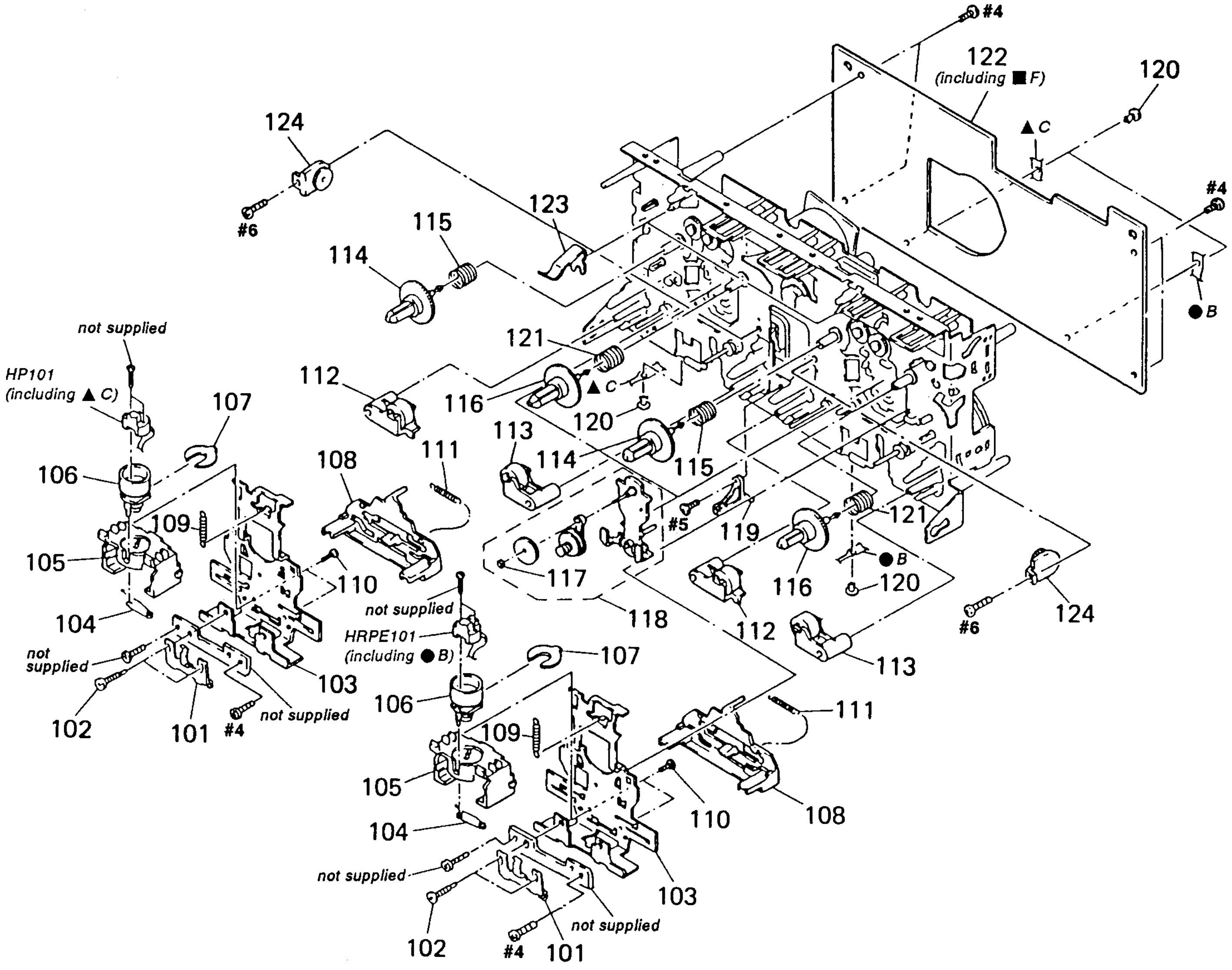
Ref. No.	Part No.	Description	Remark
1	4-978-714-01	PANEL, LOADING (US,CND,AEP,G,IT,UK,EE,CIS: made in Malaysia)	
1	4-978-714-11	PANEL, LOADING (AR,AUS,EA3,E,HK,JE,MX,MY, SP,TW:made in Malaysia/TH,EA4:made in Thailand)	
1	4-978-714-31	PANEL, LOADING (H881D;US,CND:made in Malaysia)	
1	4-980-115-21	PANEL, LOADING (H881;US,CND,AEP,G,IT, UK,EE,CIS:made in Indonesia)	
1	4-980-115-31	PANEL, LOADING (AR,AUS,E,HK,MX,SP,IA:made in Indonesia)	
1	4-980-115-51	PANEL, LOADING (H881D;US,CND:made in Indonesia)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
* 3	4-978-748-01	CASE (made in Malaysia)	
* 3	4-978-748-61	CASE (made in Indnesia)	
* 4	1-659-116-11	TRANS BOARD	
* 5	1-533-217-31	HOLDER, FUSE	
* 6	A-4389-022-A	POWER BOARD, COMPLETE (H881D:US,CND)	
* 6	A-4389-040-A	POWER BOARD, COMPLETE (H881:US,CND)	
* 6	A-4389-041-A	POWER BOARD, COMPLETE (AEP,G,IT,UK,EE,CIS)	
* 6	A-4389-042-A	POWER BOARD, COMPLETE (AR,AUS,EA,SP,MY,MX,JE,HK,E,TW,TH)	
* 7	4-978-749-01	PANEL, BACK (H881;US:made in Malaysia)	
* 7	4-978-749-11	PANEL, BACK (H881;CND:made in Malaysia)	
* 7	4-978-749-21	PANEL, BACK (AEP:made in Malaysia)	
* 7	4-978-749-31	PANEL, BACK (UK:made in Malaysia)	
* 7	4-978-749-41	PANEL, BACK (G:made in Malaysia)	
* 7	4-978-749-51	PANEL, BACK (IT:made in Malaysia)	
* 7	4-978-749-61	PANEL, BACK (EE:made in Malaysia)	
* 7	4-978-749-71	PANEL, BACK (CIS:made in Malaysia)	
* 7	4-979-268-01	PANEL, BACK (E:made in Malaysia)	
* 7	4-979-268-11	PANEL, BACK (EA3,TW:made in Malaysia)	
* 7	4-979-268-21	PANEL, BACK (AUS:made in Malaysia)	
* 7	4-979-268-31	PANEL, BACK (MX:made in Malaysia)	
* 7	4-979-268-41	PANEL, BACK (MY:made in Malaysia)	
* 7	4-979-268-51	PANEL, BACK (SP:made in Malaysia)	
* 7	4-979-268-61	PANEL, BACK (AR:made in Malaysia)	
* 7	4-979-268-71	PANEL, BACK (HK:made in Malaysia)	
* 7	4-979-268-81	PANEL, BACK (JE:made in Malaysia)	
* 7	4-979-268-91	PANEL, BACK (made in Thailand)	
* 7	4-979-269-01	PANEL, BACK (H881D;US:made in Malaysia)	
* 7	4-979-269-11	PANEL, BACK (H881D;CND:made in Malaysia)	
* 7	4-979-277-01	PANEL, BACK (H881;US:made in Indonesia)	
* 7	4-979-277-11	PANEL, BACK (H881;CND:made in Indonesia)	
* 7	4-979-277-21	PANEL, BACK (AEP:made in Indonesia)	
* 7	4-979-277-31	PANEL, BACK (UK:made in Indonesia)	
* 7	4-979-277-41	PANEL, BACK (G:made in Indonesia)	
* 7	4-979-277-51	PANEL, BACK (IT:made in Indonesia)	
* 7	4-979-277-61	PANEL, BACK (EE:made in Indonesia)	
* 7	4-979-277-71	PANEL, BACK (CIS:made in Indonesia)	
* 7	4-979-278-01	PANEL, BACK (E,IA:made in Indonesia)	
* 7	4-979-278-21	PANEL, BACK (AUS:made in Indonesia)	
* 7	4-979-278-31	PANEL, BACK (MX:made in Indonesia)	
* 7	4-979-278-51	PANEL, BACK (SP:made in Indonesia)	
* 7	4-979-278-61	PANEL, BACK (AR:made in Indonesia)	
* 7	4-979-278-71	PANEL, BACK (HK:made in Indonesia)	
* 7	4-979-279-01	PANEL, BACK (H881D;US:made in Indonesia)	
* 7	4-979-279-11	PANEL, BACK (H881D;CND:made in Indonesia)	
8	1-751-086-11	WIRE (FLAT TYPE) (13 CORE) (US,CND,AR,AUS,E2,MX,TH,EA4)	
8	1-773-012-11	WIRE (FLAT TYPE) (15 CORE) (AEP,IT,G,UK,CIS, EE,E3,JE,MX,MY,EA3,TW,SP,IA)	
* 9	A-4389-045-A	MAIN BOARD, COMPLETE (H881:US,CND)	
* 9	A-4389-046-A	MAIN BOARD, COMPLETE (AEP,UK)	
* 9	A-4389-047-A	MAIN BOARD, COMPLETE (G,IT)	
* 9	A-4389-048-A	MAIN BOARD, COMPLETE (EE)	
* 9	A-4389-049-A	MAIN BOARD, COMPLETE (CIS)	
* 9	A-4389-050-A	MAIN BOARD, COMPLETE (AR,E2,MX)	
* 9	A-4389-051-A	MAIN BOARD, COMPLETE (EA,E3,HK,MY,SP,TW)	
* 9	A-4389-052-A	MAIN BOARD, COMPLETE (AUS,TH)	
* 9	A-4389-197-A	MAIN BOARD, COMPLETE (H881D:US,CND)	
* 9	A-4389-358-A	MAIN BOARD, COMPLETE (JE)	
* 10	3-703-244-00	BUSHING (2104), CORD(EXCEPT E,IA:made in Indnesia/E,JE,MX:made in Malaysia/TH)	
10	3-703-571-11	BUSHING (S) (4516), CORD (E,JE,MX:made in Malaysia/TH)	
10	4-966-266-01	BUSHING (S) (FBS002), CORD (E,IA:made in Indnesia)	
11	4-965-822-01	FOOT	
⚠ 12	1-575-651-11	CORD, POWER (AR,AEP,G,IT,EA,CIS,SP,MY,HK,EE,TW)	
⚠ 12	1-575-653-11	CORD, POWER (MX,JE,E,IA)	
⚠ 12	1-690-608-11	CORD, POWER (AUS)	
⚠ 12	1-690-609-21	CORD, POWER (US,CND)	
⚠ 12	1-751-326-31	CORD, POWER (TH)	
⚠ 12	1-751-520-21	CORD, POWER (UK)	
* 13	A-4303-514-A	TCB BOARD, COMPLETE (AEP,UK)	
* 13	A-4303-515-A	TCB BOARD, COMPLETE (G,IT)	
* 13	A-4303-516-A	TCB BOARD, COMPLETE (EE)	
* 13	A-4303-517-A	TCB BOARD, COMPLETE (CIS)	
* 13	A-4303-518-A	TCB BOARD, COMPLETE (E3,EA,MY,SP,TW,HK,JE,IA)	
* 13	A-4303-522-A	TCB BOARD, COMPLETE (US,CND)	
* 13	A-4303-524-A	TCB BOARD, COMPLETE (E2,AUS,AR,MX,TH)	
14	1-698-659-11	FAN, DC (EXCEPT AEP,G,IT,UK,CIS,EE)	
15	4-956-370-12	BAND, PLUG FIXED (UK,AUS,HK)	
* 16	A-4377-454-A	POLAR BOARD, COMPLETE (CIS)	
17	1-751-688-11	WIRE (FLAT TYPE) (13 CORE) (CIS)	
⚠ 18	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
⚠ 18	1-569-007-11	ADAPTER, CONVERSION 2P (E,JE,IA)	
⚠ 18	1-569-008-11	ADAPTER, CONVERSION 2P (EA3,SP,TW)	
⚠ F1601	1-532-299-00	FUSE (T5AL,250V) (AEP,UK,G,IT,EE,CIS)	
⚠ F1602	1-532-299-00	FUSE (T5AL,250V) (AEP,UK,G,IT,EE,CIS)	
⚠ F1603	1-532-350-00	FUSE (T4AL,250V) (E,EA,SP,JE,HK,IA,MX)	
⚠ F1603	1-533-420-11	FUSE, GLASS TUBE (5A 125V) (US,CND)	
⚠ F1604	1-532-203-00	FUSE (T2AL,250V) (E,EA,JE,HK,AR,MY,AUS,TW)	
⚠ T1601	1-429-294-11	TRANSFORMER, POWER (US,CND:made in Malaysia)	
⚠ T1601	1-429-295-11	TRANSFORMER, POWER (US,CND:made in Indonesia)	
⚠ T1601	1-429-296-11	TRANSFORMER, POWER (AEP,IT,G,UK,EE,CIS:made in Malaysia)	
⚠ T1601	1-429-297-11	TRANSFORMER, POWER (AEP,IT,G,UK,EE,CIS:made in Indonesia)	
⚠ T1601	1-429-298-11	TRANSFORMER, POWER (AR,AUS,EA3,E,HK,JE, MX,MY,SP,TW:made in Malaysia/TH,EA4 :made in Thailand)	
⚠ T1601	1-429-299-11	TRANSFORMER, POWER (AR,AUS,E,HK,MX,SP,IA:made in Indonesia)	

7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-4946-662-1	LID (B) ASSY, CASSETTE (made in Malaysia/ made in Thailand)	
51	X-4946-788-1	LID (B) ASSY, CASSETTE (made in Indonesia)	
52	X-4946-661-1	LID (A) ASSY; CASSETTE (made in Malaysia/ made in Thailand)	
52	X-4946-787-1	LID (A) ASSY, CASSETTE (made in Indonesia)	
53	4-978-733-01	KNOB, VOL (made in Malaysia/made in Thailand)	
53	4-978-733-11	KNOB, VOL (made in Indnesia)	
54	4-978-732-01	KNOB, JOG (made in Malaysia/made in Thailand)	
54	4-978-732-11	KNOB, JOG (made in Indnesia)	
55	4-978-713-21	PANEL, FRONT (AEP,G,IT,UK,EE:made in Indnesia)	
55	4-978-713-31	PANEL, FRONT (EXCEPT AEP,G,IT,UK, EE:made in Indnesia)	
55	X-4946-659-1	PANEL ASSY, FRONT (AEP,G,IT,UK,EE:made in Malaysia)	
55	X-4946-660-1	PANEL ASSY, FRONT (EXCEPT AEP,G,IT,UK,EE/ made in Malaysia)	
55	X-4947-003-1	PANEL ASSY, FRONT (AEP,G,IT,UK,EE:made in Indonesia)	
55	X-4947-016-1	PANEL ASSY, FRONT (EXCEPT AEP,G,IT,UK,EE/ made in Indonesia)	
56	4-930-336-61	FOOT (FELT)	
57	4-978-745-01	PLATE, ORNAMENTAL, JOG (made in Malaysa/ made in Thailand)	
57	4-978-745-31	PLATE, ORNAMENTAL, JOG (made in Indnesia)	
58	4-962-708-11	EMBLEM (4-A), SONY (made in Malaysia/ Thailand)	
58	4-962-708-21	EMBLEM (4-A), SONY (made in Indnesia)	
* 59	A-4389-029-A	CD-SW BOARD, COMPLETE	
* 60	4-932-810-11	CUSHION (FL)	
* 61	4-971-014-11	HOLDER, FL TUBE	
62	4-951-620-01	SCREW (2.6X8), +BVTP	
* 63	A-4389-024-A	PANEL BOARD, COMPLETE (US,CND)	
* 63	A-4389-025-A	PANEL BOARD, COMPLETE (AEP,G,IT,UK)	
* 63	A-4389-026-A	PANEL BOARD, COMPLETE (AR,AUS,EE,E2,MX,TH)	
* 63	A-4389-027-A	PANEL BOARD, COMPLETE (EA,E3,HK,JE,MY,SP, CIS,TW)	
64	4-959-231-11	SPRING (L), TORSION	
65	X-4946-663-1	HOLDER (L) ASSY, CASSETTE (made in Malaysia / Thailand)	
65	X-4946-789-1	HOLDER (L) ASSY, CASSETTE (made in Indonesia)	
66	3-354-957-01	JOINT (LOCK LEVER)	
* 67	3-354-953-01	LEVER (LOCK LEVER L)	
68	1-773-157-11	WIRE (FLAT TYPE) (21 CORE)	
69	1-765-325-11	WIRE (FLAT TYPE) (11 CORE) (EXCEPT TH,EA4)	
69	1-769-945-11	WIRE (FLAT TYPE) (11 CORE) (TH,EA4)	
* 70	3-354-954-01	LEVER (LOCK LEVER R)	
71	X-4946-664-1	HOLDER (R) ASSY, CASSETTE (made in Malaysia / Thailand)	
71	X-4946-790-1	HOLDER (R) ASSY, CASSETTE (made in Indonesia)	
72	4-959-232-11	SPRING (R), TORSION	
* 73	A-4389-031-A	HP/MIC BOARD, COMPLETE (EXCEPT AEP,G,IT,UK)	
* 73	A-4389-032-A	HP/MIC BOARD, COMPLETE (AEP,G,IT,UK)	
74	4-973-644-01	KNOB (MIC)	
* 75	A-4389-030-A	TC-SW BOARD, COMPLETE	
* 76	A-4389-028-A	JOG BOARD, COMPLETE	
77	1-769-977-11	WIRE (FLAT TYPE) (13 CORE)	
78	4-978-731-01	BUTTON, EJECT (made in Malaysia/ Thailand)	
78	4-978-731-11	BUTTON, EJECT (made in Indnesia)	
FL501	1-517-483-11	INDICATOR TUBE, FLUORESCENT	

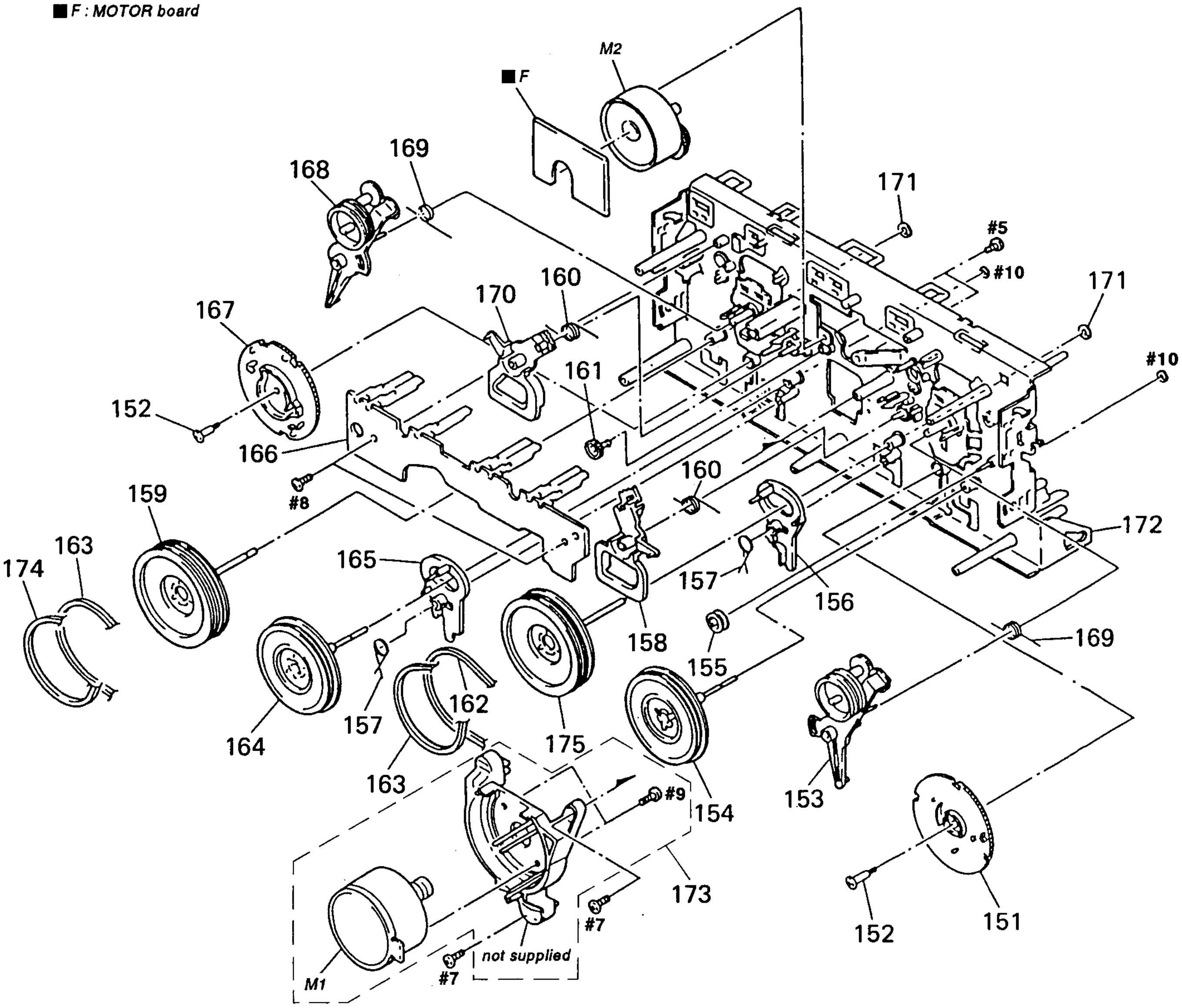
7-3. MECHANISM DECK SECTION-1
(TCM-220WR2E)


#4
122
(including ■F)
120
124
▲C
#4
#6
123
115
114
●B
not supplied
121
HP101
(including ▲ C)
112
107
116
▲C
113
120
111
114
106
108
115
109
#5
119
121
105
●B
110
117
116
120
not supplied
118
124
104
HRPE101
(including ●B)
#6
112
not supplied
107
113
103
102
101
#4
not supplied
106
111
109
105
110
108
104
not supplied
103
not supplied
102
#4
101

Ref. No.	Part No.	Description	Remark
101	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT	
102	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT	
* 103	X-3367-584-2	SLIDER (HEAD) ASSY	
104	3-908-556-01	SPRING, HEAD TOGGLE	
105	3-908-558-02	FITTING BLOCK, HEAD	
106	3-908-557-02	ROTARY BLOCK, HEAD	
* 107	3-908-559-01	STOPPER, AZIMUTH	
108	3-908-555-01	SLIDER (REV SLIDER)	
109	3-917-143-11	SPRING, TENSION	
110	3-388-848-01	SCREW (P2X6) (B TIGHT)	
111	3-911-113-01	SPRING, TENSION	
112	X-3370-643-1	PINCH LEVER (REV) ASSY	
113	X-3367-588-1	PINCH LEVER (FWD) ASSY	
114	3-908-613-01	GEAR (S), REEL	
115	3-917-141-01	SPRING, COMPRESSION	
116	X-3371-305-1	REEL (T) ASSY	
117	3-669-465-01	WASHER (1.5), STOPPER	
118	X-3370-173-1	TU ASSY	
* 119	3-908-611-01	FULCRUM, HOLDER	
120	3-911-116-21	RIVET, PUSH	
121	3-917-142-01	SPRING, COMPRESSION	
* 122	A-2007-435-A	AUDIO BOARD, COMPLETE	
123	3-930-972-01	DETENT, HALF	
124	3-354-963-01	DAMPER	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	

7-4. MECHANISM DECK SECTION-2 (TCM-220WR2E)

■ *F : MOTOR board*


M2
■F
168
169
171
#5
#10
171
#10
167
170
160
161
152
166
#8
159
163
174
165
160
157
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162
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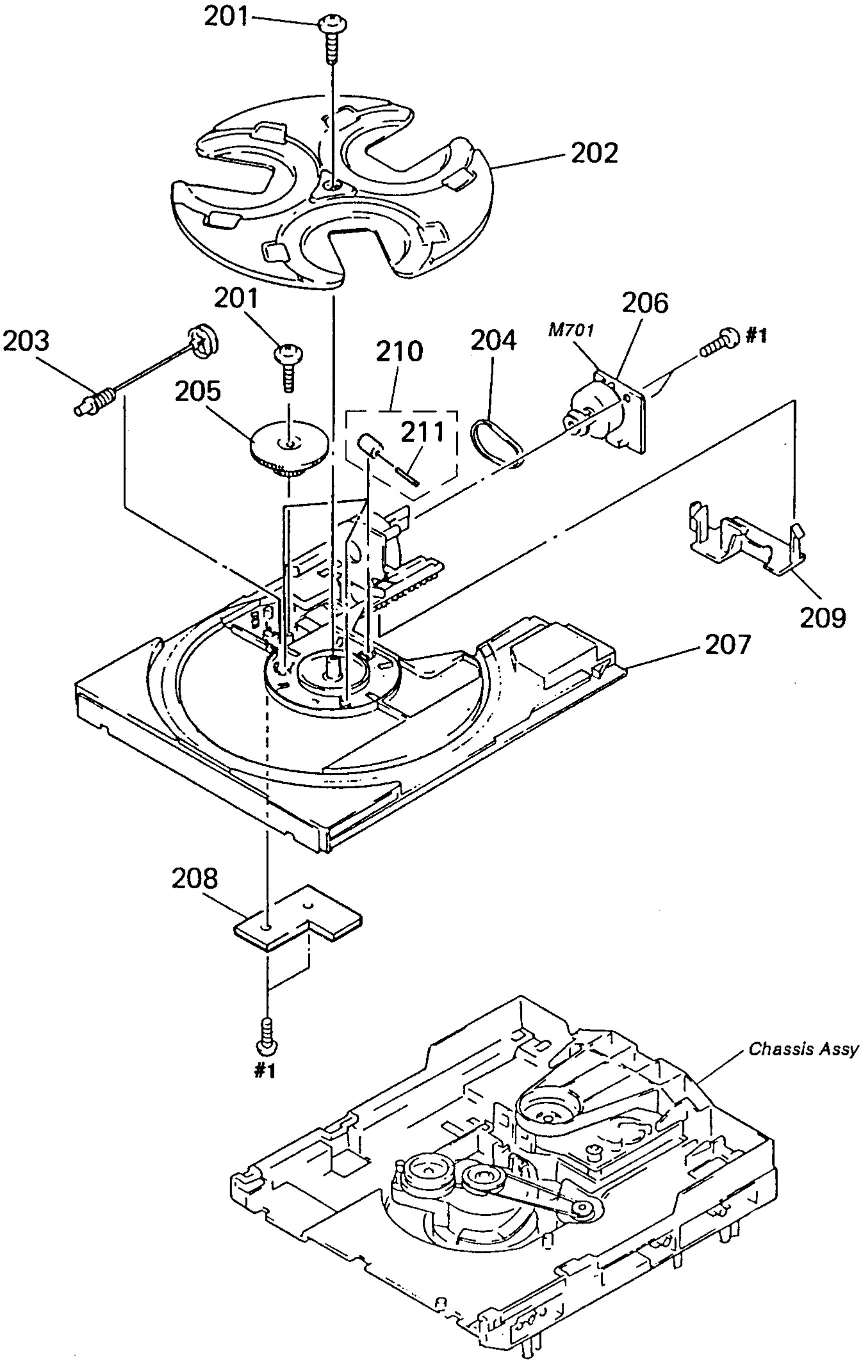
164
175
163
#9
154
153
173
#7
not supplied
M1
#7
152
151

Ref. No.	Part No.	Description	Remark
151	3-908-597-01	CAM (A)	
152	3-908-608-11	SCREW, STEP	
153	X-3367-590-2	ARM (A) ASSY, FR	
154	X-3370-169-1	FLYWHEEL (AR) ASSY	
155	3-928-047-01	PULLEY, TENSION	
156	3-908-599-01	LEVER (REV-A)	
157	3-908-601-01	SPRING (REV LEVER), TORSION	
158	3-908-603-01	LEVER (TRIGGER A)	
159	X-3367-593-1	FLYWHEEL (BF) ASSY	
160	3-908-605-01	SPRING (TRIGGER), TORSION	
161	3-908-609-01	GEAR, TRIGGER	
162	3-913-845-11	BELT (A)	
163	3-913-846-11	BELT (FR)	
164	X-3370-171-1	FLYWHEEL (BR) ASSY	
165	3-908-600-01	LEVER (REV-B)	
* 166	1-650-669-11	LEAF SWITCH BOARD	
167	3-908-598-01	CAM (B)	
168	X-3369-849-2	ARM (B) ASSY, FR	
169	3-914-111-01	SPRING (FR), TORSION	
170	3-908-604-01	LEVER (TRIGGER B)	
171	3-911-115-01	WASHER, STOPPER	
172	X-3371-441-1	CHASSIS ASSY	
173	A-2004-409-A	MOTOR ASSY, CAPSTAN	
174	3-917-176-11	BELT (B)	
175	X-3370-172-1	FLYWHEEL (AF) ASSY	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY, DC (TRIGGER)	

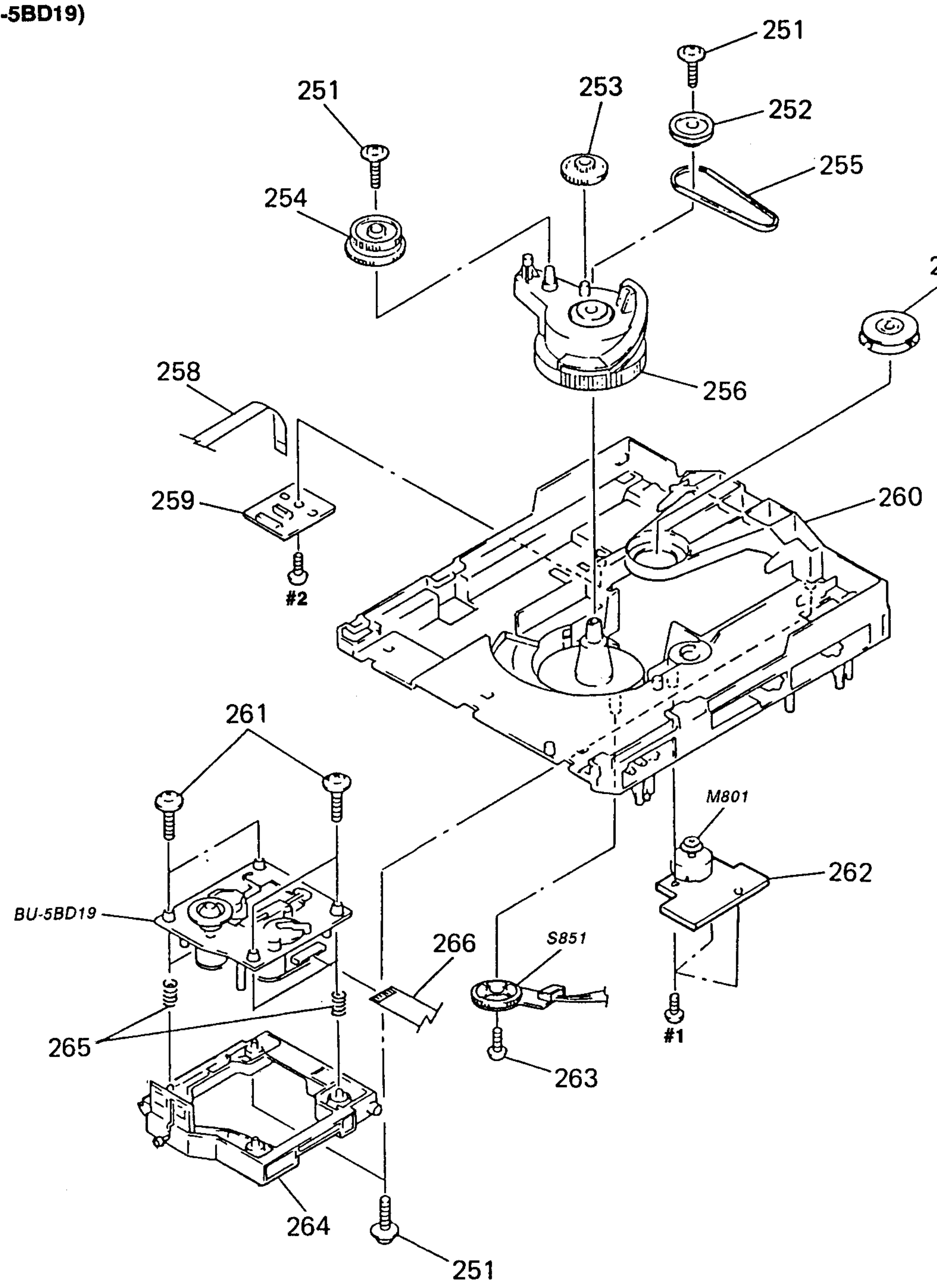
7-5. DISC TABLE ASSY SECTION
(CDM38-5BD19)


201
202
201
206
203
M701
#1
210
204
205
211
209
207
208
#1
Chassis Assy

Ref. No.	Part No.	Description	Remark
201	4-917-583-21	BRACKET, YOKE	
202	4-977-945-01	TRAY (TURN)	
203	X-4946-665-2	SHAFT ASSY, WORM (H881/H881D)	
204	4-977-943-01	BELT (TURN) (1.2)	
205	4-977-956-01	WHEEL, WORM	
* 206	1-658-577-11	MOTOR (TURN) BOARD	

Ref. No.	Part No.	Description	Remark
207	4-977-944-01	TRAY (SLIDE)	
* 208	1-658-576-12	SENSOR BOARD	
209	4-977-941-01	BEARING (WORM)	
210	X-4924-457-1	ROLLER ASSY	
211	4-934-376-01	SHAFT (ROLLER)	
M701	A-4660-586-A	MOTOR ASSY(TURN)	

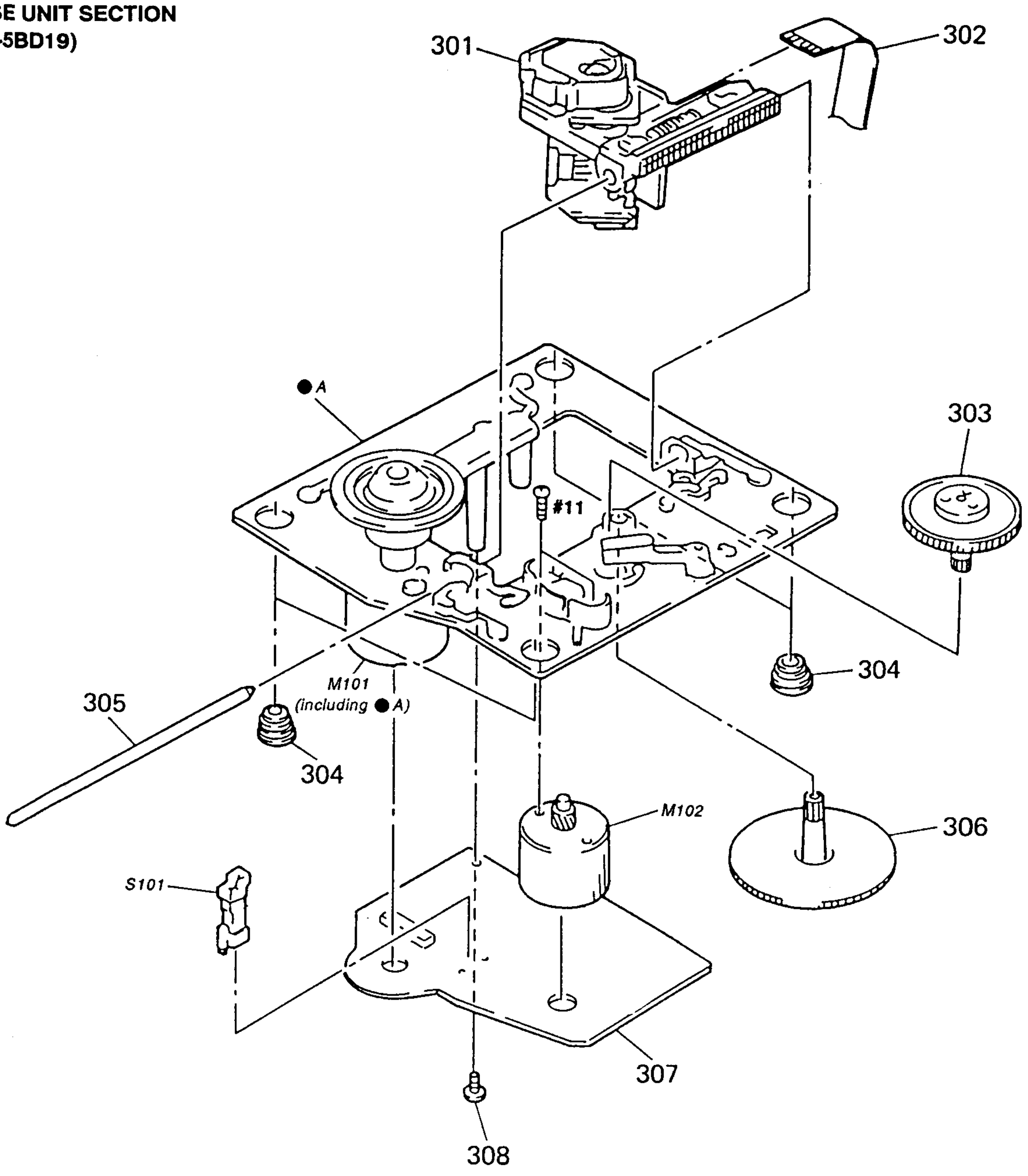
7-6. CDM CHASSIS SECTION
(CDM38-5BD19)


251
253
251
252
255
254
257
258
256
259
260
#2
261
M801
262
BU-5BD19
266
S851
265
#1
263
264
251

Ref. No.	Part No.	Description	Remark
251	4-917-583-21	BRACKET, YOKE	
252	4-977-954-01	PULLEY (SL)	
253	4-977-953-01	GEAR (SL-A)	
254	4-977-955-01	GEAR (SL-B)	
255	4-977-942-01	BELT (SL) (1.4)	
256	X-4946-667-1	CAM ASSY, BU	
257	1-452-538-11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
* 259	1-658-575-11	CONNECTOR BOARD	
* 260	X-4946-668-1	CHASSIS (CDM) ASSY	

Ref. No.	Part No.	Description	Remark
261	4-933-134-01	SCREW (+PTPWH M2.6X6)	
262	1-658-578-12	MOTOR (SLIDE) BOARD	
263	4-951-620-41	SCREW (2.6), +BVTP	
* 264	X-4946-666-1	HOLDER (BU) ASSY	
265	4-958-593-01	SPRING (BU), COMPRESSION	
266	1-776-442-11	WIRE (FLAT TYPE) (19 CORE) (EXCEPT TH)	
M801	A-4660-586-A	MOTOR ASSY(SLIDE)	
S851	1-473-335-11	ENCODER, ROTARY	

7-7. BASE UNIT SECTION (BU-5BD19)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
⚠ 301	8-848-367-11	DEVICE, OPTICAL KSS-213BA/F-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
303	4-917-567-01	GEAR (M)	
304	4-951-940-01	INSULATOR (BU)	
305	4-917-565-01	SHAFT, SLED	
306	4-917-564-01	GEAR (P), FLATNESS	
* 307	A-4673-402-A	BD BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-523-4	BASE OUTSERT ASSY(SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY(SLED)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT SW)	

SECTION 8
ELECTRICAL PARTS LIST

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE :Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  CND : Canadian SP : Singapore
  AUS : Australian HK : Hong Kong
  AR : Argentine JE : Tourist
  MX : Mexican IA : Indonesia
  TH : Thailand G : German
  EA : Saudi Arabia IT : Italian
  MY : Malaysia EE : East European
  TW : Taiwan
  E2 : Tuner sections SW band do no exist.
  E3 : Tuner sections SW band exist.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-2007-435-A	AUDIO BOARD, COMPLETE			
		**********************			
		MOTOR BOARD			
		*************			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-126-157-11	ELECT	10uF	20%	16V
C602	1-126-157-11	ELECT	10uF	20%	16V
C611	1-124-907-11	ELECT	10uF	20%	50V
C612	1-124-907-11	ELECT	10uF	20%	50V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
C651	1-161-494-00	CERAMIC	0.022uF		25V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
* CN601	1-568-864-11	SOCKET, CONNECTOR 21P			
* CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
* CN651	1-564-521-11	PLUG, CONNECTOR 6P			
		< IC >			
IC601	8-759-111-44	IC uPC4570C-1			
IC602	8-759-143-54	IC uPC1330HA			
IC611	8-759-111-44	IC uPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q622	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q623	8-729-801-93	TRANSISTOR	2SD1387-34-TP		
Q651	8-729-900-65	TRANSISTOR	2SA1345-TP		
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W

AUDIO **MOTOR** **BD**

Ref. No.	Part No.	Description			Remark
R601	1-249-409-11	CARBON	220	5%	1/4W
R602	1-249-409-11	CARBON	220	5%	1/4W
R608	1-249-409-11	CARBON	220	5%	1/4W
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W
R612	1-249-409-11	CARBON	220	5%	1/4W
⚠ R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠ R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
R651	1-247-856-00	CARBON	11K	5%	1/4W
R652	1-247-856-00	CARBON	11K	5%	1/4W
R653	1-249-441-11	CARBON	100K	5%	1/4W

< VARIABLE RESISTOR >

RV301	1-238-598-11	RES, ADJ, CARBON 2.2K (PB LEVEL L)
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K (PB LEVEL L)
RV341	1-238-551-11	RES, ADJ, CARBON 220K (REC BIAS L)
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K (PB LEVEL R)
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K (PB LEVEL R)
RV441	1-238-551-11	RES, ADJ, CARBON 220K (REC BIAS R)
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K (TAPE SPEED (NORMAL))
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K (TAPE SPEED(HIGH))

< TRANSFORMER >

T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION

`************************************************************`

* A-4673-402-A BD BOARD, COMPLETE

`*******************`

< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V
C102	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C107	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C111	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C118	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C120	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C131	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C132	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C133	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C134	1-164-346-11	CERAMIC CHIP	1uF		16V
C135	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C136	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C137	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C139	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C140	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C142	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C145	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C146	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C147	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C148	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C149	1-164-346-11	CERAMIC CHIP	1uF		16V
C153	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V

< CONNECTOR >

CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P
CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P

< IC >

IC101	8-752-069-56	IC CXA1782BQ
IC102	8-759-291-06	IC BA6397FP-T1
IC103	8-752-372-94	IC CXD2507AQ
IC104	8-759-185-29	IC PCM1710U-BT1

< TRANSISTOR >

Q102	8-729-424-08	TRANSISTOR	MUN2111T1
Q103	8-729-421-22	TRANSISTOR	MUN2211T1

< RESISTOR >

R102	1-216-001-00	METAL CHIP	10	5%	1/10W
R103	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R104	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R105	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R106	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R107	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R108	1-216-089-91	METAL GLAZE	47K	5%	1/10W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
R109	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R112	1-216-077-00	METAL CHIP	15K	5%	1/10W
R113	1-216-077-00	METAL CHIP	15K	5%	1/10W
R114	1-216-101-00	METAL CHIP	150K	5%	1/10W
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R117	1-216-093-00	METAL CHIP	68K	5%	1/10W
R118	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R119	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R120	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R121	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R122	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R123	1-216-099-00	METAL CHIP	120K	5%	1/10W
R124	1-216-091-00	METAL CHIP	56K	5%	1/10W
R125	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R126	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R127	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R128	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R129	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R130	1-216-079-00	METAL CHIP	18K	5%	1/10W
R131	1-216-079-00	METAL CHIP	18K	5%	1/10W
R132	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R133	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R134	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R135	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W
R137	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R138	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R139	1-216-033-00	METAL CHIP	220	5%	1/10W
R140	1-216-081-00	METAL CHIP	22K	5%	1/10W
R141	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R142	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R143	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R144	1-216-073-00	METAL CHIP	10K	5%	1/10W
R145	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R146	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R147	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R148	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R149	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R150	1-216-037-00	METAL CHIP	330	5%	1/10W
R151	1-216-037-00	METAL CHIP	330	5%	1/10W
R152	1-216-037-00	METAL CHIP	330	5%	1/10W
R153	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R154	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R156	1-216-081-00	METAL CHIP	22K	5%	1/10W
R157	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R158	1-216-001-00	METAL CHIP	10	5%	1/10W
		< VARIABLE RESISTOR >			
RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K(FOCUS BIAS)			
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K(FOCUS GAIN)			
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K(TRACKING GAIN)			

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT SW)			
		< VIBRATOR >			
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)			

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*	A-4389-029-A	CD-SW BOARD, COMPLETE *********************			
		< CONNECTOR >			
* CN505	1-568-947-11	PIN, CONNECTOR 9P (EXCEPT TH)			
		< DIODE >			
D516	8-719-056-13	LED	SML79423C-TP15 (DISC 1)		
D517	8-719-056-13	LED	SML79423C-TP15 (DISC 1)		
D518	8-719-056-13	LED	SML79423C-TP15 (DISC 2)		
D519	8-719-056-13	LED	SML79423C-TP15 (DISC 2)		
D520	8-719-056-13	LED	SML79423C-TP15 (DISC 3)		
D521	8-719-056-13	LED	SML79423C-TP15 (DISC 3)		
D522	8-719-056-13	LED	SML79423C-TP15 (▷II)		
		< TRANSISTOR >			
Q510	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q511	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q512	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q513	8-729-119-76	TRANSISTOR	2SA1175-HFE		
		< RESISTOR >			
R518	1-249-401-11	CARBON	47	5%	1/4W
R519	1-249-403-11	CARBON	68	5%	1/4W
R520	1-247-807-31	CARBON	100	5%	1/4W
R521	1-249-407-11	CARBON	150	5%	1/4W
R522	1-249-407-11	CARBON	150	5%	1/4W
R523	1-249-409-11	CARBON	220	5%	1/4W
R524	1-249-411-11	CARBON	330	5%	1/4W
R525	1-249-413-11	CARBON	470	5%	1/4W
R596	1-249-403-11	CARBON	68	5%	1/4W
R597	1-249-403-11	CARBON	68	5%	1/4W
R598	1-249-403-11	CARBON	68	5%	1/4W
R599	1-249-403-11	CARBON	68	5%	1/4W
R600	1-249-403-11	CARBON	68	5%	1/4W
R601	1-249-403-11	CARBON	68	5%	1/4W
R602	1-249-403-11	CARBON	68	5%	1/4W
R603	1-249-403-11	CARBON	68	5%	1/4W
R604	1-249-403-11	CARBON	68	5%	1/4W
R605	1-249-403-11	CARBON	68	5%	1/4W
R606	1-249-403-11	CARBON	68	5%	1/4W
R607	1-249-403-11	CARBON	68	5%	1/4W
R608	1-249-403-11	CARBON	68	5%	1/4W
R609	1-249-403-11	CARBON	68	5%	1/4W

CD-SW CONNECTOR HP/MIC JOG

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S500	1-554-303-21	SWITCH, TACTILE (POWER)	
S501	1-554-303-21	SWITCH, TACTILE (LOOP)	
S502	1-554-303-21	SWITCH, TACTILE (DISC SKIP EX-CHANGE)	
S503	1-554-303-21	SWITCH, TACTILE (DISC 1)	
S504	1-554-303-21	SWITCH, TACTILE (DISC 2)	
S505	1-554-303-21	SWITCH, TACTILE (DISC 3)	
S506	1-554-303-21	SWITCH, TACTILE (⏏ OPEN/CLOSE)	
S507	1-554-303-21	SWITCH, TACTILE (■)	
S508	1-554-303-21	SWITCH, TACTILE (▷II)	

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Ref. No.	Part No.	Description	Remark
*	1-658-575-11	CONNECTOR BOARD *****************	
		< CONNECTOR >	
* CN701	1-568-946-11	PIN, CONNECTOR 8P	
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P	
		< TRANSISTOR >	
Q701	8-729-900-80	TRANSISTOR BA1A4M-TP	
		< RESISTOR >	
R703	1-249-435-11	CARBON 33K 5% 1/4W	
R704	1-249-429-11	CARBON 10K 5% 1/4W	
R705	1-249-417-11	CARBON 1K 5% 1/4W	

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Ref. No.	Part No.	Description	Remark
*	A-4389-031-A	HP/MIC BOARD, COMPLETE (EXCEPT AEP,G,IT, UK)	
*	A-4389-032-A	HP/MIC BOARD, COMPLETE (AEP,G,IT,UK) **********************	
		< CAPACITOR >	
C670	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C671	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C674	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C675	1-124-257-00	ELECT 2.2uF 20% 50V	
C676	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C677	1-162-215-31	CERAMIC 47PF 5% 50V	
C678	1-162-290-31	CERAMIC 470PF 10% 50V	
C679	1-124-465-00	ELECT 0.47uF 20% 50V	
C680	1-162-215-31	CERAMIC 47PF 5% 50V	
C681	1-162-282-31	CERAMIC 100PF 10% 50V	
C684	1-124-261-00	ELECT 10uF 20% 50V	
C686	1-124-261-00	ELECT 10uF 20% 50V	
C687	1-124-464-11	ELECT 0.22uF 20% 50V	
		< IC >	
IC670	8-759-634-51	IC M5218AP	

Ref. No.	Part No.	Description	Remark
		< JACK >	
J670	1-770-226-11	JACK (LARGE TYPE) (PHONES)	
J671	1-770-226-11	JACK (LARGE TYPE) (MIX MIC)	
		< RESISTOR >	
R670	1-249-429-11	CARBON 10K 5% 1/4W	
R671	1-249-417-11	CARBON 1K 5% 1/4W	
R672	1-249-441-11	CARBON 100K 5% 1/4W	
R673	1-249-417-11	CARBON 1K 5% 1/4W	
R674	1-249-433-11	CARBON 22K 5% 1/4W	
R675	1-249-429-11	CARBON 10K 5% 1/4W	
R676	1-247-881-00	CARBON 120K 5% 1/4W	
R677	1-247-807-31	CARBON 100 5% 1/4W	
		< VARIABLE RESISTOR >	
RV670	1-223-983-11	RES, VAR, CARBON 50K (MIC LEVEL)	

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Ref. No.	Part No.	Description	Remark
*	A-4389-028-A	JOG BOARD, COMPLETE ********************	
		< DIODE >	
D508	8-719-058-17	LED LNJ401NPYJA (SONIC FORMATION)	
D509	8-719-057-30	LED HLMF-K205-211M (ENTER/NEXT)	
D510	8-719-057-97	LED SEL5923A-TP15 (►►I)	
D511	8-719-057-97	LED SEL5923A-TP15 (I◄◄)	
D512	8-719-057-97	LED SEL5923A-TP15 (+)	
D513	8-719-057-97	LED SEL5923A-TP15 (-)	
D514	8-719-057-97	LED SEL5923A-TP15 (⟶)	
D515	8-719-057-97	LED SEL5923A-TP15 (⟵)	
		< TRANSISTOR >	
Q507	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q508	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< RESISTOR >	
R541	1-249-413-11	CARBON 470 5% 1/4W	
R542	1-249-415-11	CARBON 680 5% 1/4W	
R543	1-249-417-11	CARBON 1K 5% 1/4W	
R544	1-249-419-11	CARBON 1.5K 5% 1/4W	
R545	1-249-421-11	CARBON 2.2K 5% 1/4W	
R546	1-249-423-11	CARBON 3.3K 5% 1/4W	
R588	1-247-807-31	CARBON 100 5% 1/4W	
R589	1-249-407-11	CARBON 150 5% 1/4W	
R590	1-247-807-31	CARBON 100 5% 1/4W	
R591	1-247-807-31	CARBON 100 5% 1/4W	
R592	1-247-807-31	CARBON 100 5% 1/4W	
R593	1-247-807-31	CARBON 100 5% 1/4W	
R594	1-247-807-31	CARBON 100 5% 1/4W	
R595	1-247-807-31	CARBON 100 5% 1/4W	

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S524	1-554-303-21	SWITCH, TACTILE (DBFB)			
S526	1-554-303-21	SWITCH, TACTILE (SONIC FORMATION)			
S527	1-554-303-21	SWITCH, TACTILE (FREQUENCY +)			
S528	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)			
S529	1-554-303-21	SWITCH, TACTILE (FREQUENCY -)			
S561	1-467-869-11	ENCODER, ROTARY (VOLUME)			
S562	1-467-968-11	ENCODER, ROTARY (MULTI JOG STATION)			

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Ref. No.	Part No.	Description			Remark
*	1-650-669-11	LEAF SWITCH BOARD *****************			
		< CONNECTOR >			
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P			
		< TRANSISTOR >			
Q1001	8-749-010-90	PHOTO REFLECTOR NJL5165KA-H			
Q1002	8-749-010-90	PHOTO REFLECTOR NJL5165KA-H			
		< RESISTOR >			
R1001	1-249-412-11	CARBON	390	5%	1/4W
R1002	1-249-412-11	CARBON	390	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
		< SWITCH >			
S1001	1-692-832-11	SWITCH, PUSH (1 KEY) (A PLAY)			
S1002	1-692-832-11	SWITCH, PUSH (1 KEY) (B PLAY)			
S1003	1-572-248-11	SWITCH, LEAF (A HALF)			
S1004	1-571-281-21	SWITCH, LEAF (A CrO$_2$)			
S1005	1-571-281-21	SWITCH, LEAF (REC A)			
S1006	1-572-248-11	SWITCH, LEAF (B HALF)			
S1008	1-571-281-21	SWITCH, LEAF (B CrO2)			
S1009	1-571-281-21	SWITCH, LEAF (REC B)			

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Ref. No.	Part No.	Description	Remark
*	A-4389-045-A	MAIN BOARD, COMPLETE (H881:US,CND)	
*	A-4389-046-A	MAIN BOARD, COMPLETE (AEP,UK)	
*	A-4389-047-A	MAIN BOARD, COMPLETE (G,IT)	
*	A-4389-048-A	MAIN BOARD, COMPLETE (EE)	
*	A-4389-049-A	MAIN BOARD, COMPLETE (CIS)	
*	A-4389-050-A	MAIN BOARD, COMPLETE (AR,E2,MX)	
*	A-4389-051-A	MAIN BOARD, COMPLETE (EA,E3,HK,MY,SP,TW)	
*	A-4389-052-A	MAIN BOARD, COMPLETE (AUS,TH)	
*	A-4389-197-A	MAIN BOARD, COMPLETE (H881D:US,CND)	
*	A-4389-358-A	MAIN BOARD, COMPLETE (JE) ********************	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

Ref. No.	Part No.	Description				Remark
		< CAPACITOR >				
C201	1-124-925-11	ELECT	2.2uF	20%	100V	
C202	1-162-600-11	CERAMIC	0.0047uF	30%	16V	
C203	1-126-925-11	ELECT	470uF	20%	10V	
C204	1-126-933-11	ELECT	100uF	20%	10V	
C205	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C211	1-124-925-11	ELECT	2.2uF	20%	100V	
C212	1-162-600-11	CERAMIC	0.0047uF	30%	16V	
C250	1-162-306-11	CERAMIC	0.01uF	30%	16V	(AEP,G,IT,UK,EE)
C251	1-164-035-11	CERAMIC	47PF	5%	50V	(AEP,G,IT,UK,EE)
C252	1-102-527-11	CERAMIC	82PF	5%	50V	(AEP,G,IT,UK,EE)
C253	1-162-291-31	CERAMIC	560PF	10%	50V	(AEP,G,IT,UK,EE)
C254	1-162-306-11	CERAMIC	0.01uF	30%	16V	(AEP,G,IT,UK,EE)
C255	1-162-288-31	CERAMIC	330PF	10%	50V	(AEP,G,IT,UK,EE)
C256	1-124-925-11	ELECT	2.2uF	20%	100V	(AEP,G,IT,UK,EE)
C257	1-126-964-11	ELECT	10uF	20%	50V	(AEP,G,IT,UK,EE)
C258	1-162-291-31	CERAMIC	560PF	10%	50V	(AEP,G,IT,UK,EE)
C259	1-126-964-11	ELECT	10uF	20%	50V	(AEP,G,IT,UK,EE)
C260	1-164-159-11	CERAMIC	0.1uF		50V	(AEP,G,IT,UK,EE)
C261	1-126-967-11	ELECT	47uF	20%	16V	(AEP,G,IT,UK,EE)
C301	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C302	1-162-290-31	CERAMIC	470PF	10%	50V	
C303	1-164-159-11	CERAMIC	0.1uF		50V	
C305	1-124-903-11	ELECT	1uF	20%	50V	
C306	1-124-902-00	ELECT	0.47uF	20%	50V	
C307	1-126-964-11	ELECT	10uF	20%	50V	
C308	1-126-964-11	ELECT	10uF	20%	50V	
C309	1-124-903-11	ELECT	1uF	20%	50V	
C310	1-126-933-11	ELECT	100uF	20%	10V	
C351	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C352	1-162-290-31	CERAMIC	470PF	10%	50V	
C353	1-164-159-11	CERAMIC	0.1uF		50V	
C355	1-124-903-11	ELECT	1uF	20%	50V	
C356	1-124-902-00	ELECT	0.47uF	20%	50V	
C357	1-126-964-11	ELECT	10uF	20%	50V	
C358	1-126-964-11	ELECT	10uF	20%	50V	
C359	1-124-903-11	ELECT	1uF	20%	50V	
C360	1-126-933-11	ELECT	100uF	20%	10V	
C401	1-164-159-11	CERAMIC	0.1uF		50V	
C402	1-164-159-11	CERAMIC	0.1uF		50V	
C403	1-164-159-11	CERAMIC	0.1uF		50V	
C404	1-126-933-11	ELECT	100uF	20%	16V	
C405	1-126-935-11	ELECT	470uF	20%	16V	
C701	1-162-306-11	CERAMIC	0.01uF	30%	16V	

MAIN

Ref. No.	Part No.	Description			Remark
C702	1-126-916-11	ELECT	1000uF	20%	6.3V
C703	1-126-964-11	ELECT	10uF	20%	50V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-136-165-00	FILM	0.1uF	5%	50V
C706	1-126-964-11	ELECT	10uF	20%	50V
C707	1-162-203-31	CERAMIC	15PF	5%	50V
C708	1-162-203-31	CERAMIC	15PF	5%	50V
C710	1-162-306-11	CERAMIC	0.01uF	30%	16V
C713	1-162-306-11	CERAMIC	0.01uF	30%	16V
C714	1-162-306-11	CERAMIC	0.01uF	30%	16V
C810	1-162-306-11	CERAMIC	0.01uF	30%	16V
C811	1-162-306-11	CERAMIC	0.01uF	30%	16V
C821	1-162-286-31	CERAMIC	220PF	10%	50V
C822	1-162-286-31	CERAMIC	220PF	10%	50V
C825	1-109-889-11	ELECT	1uF	20%	50V
C832	1-130-473-00	MYLAR	0.0015uF	5%	50V
C833	1-124-903-11	ELECT	1uF	20%	50V
C834	1-130-479-00	MYLAR	0.0047uF	5%	50V
C835	1-124-903-11	ELECT	1uF	20%	50V
C836	1-136-495-11	FILM	0.068uF	5%	50V
C837	1-104-664-11	ELECT	47uF	20%	25V
C838	1-124-902-00	ELECT	0.47uF	20%	50V
C839	1-124-902-00	ELECT	0.47uF	20%	50V
C840	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C841	1-136-495-11	FILM	0.068uF	5%	50V
C842	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C843	1-130-473-00	MYLAR	0.0015uF	5%	50V
C844	1-124-903-11	ELECT	1uF	20%	50V
C845	1-161-494-00	CERAMIC	0.022uF		25V
C846	1-126-933-11	ELECT	100uF	20%	10V
C847	1-162-306-11	CERAMIC	0.01uF	30%	16V
C848	1-162-290-31	CERAMIC	470PF	10%	50V
C849	1-162-290-31	CERAMIC	470PF	10%	50V
C860	1-162-306-11	CERAMIC	0.01uF	30%	16V
C861	1-162-306-11	CERAMIC	0.01uF	30%	16V
C862	1-126-964-11	ELECT	10uF	20%	50V
C863	1-162-306-11	CERAMIC	0.01uF	30%	16V
C864	1-126-964-11	ELECT	10uF	20%	50V
C865	1-162-306-11	CERAMIC	0.01uF	30%	16V
C871	1-162-286-31	CERAMIC	220PF	10%	50V
C872	1-162-286-31	CERAMIC	220PF	10%	50V
C900	1-126-964-11	ELECT	10uF	20%	50V
C901	1-124-464-11	ELECT	0.22uF	20%	50V
C902	1-124-464-11	ELECT	0.22uF	20%	50V
C903	1-136-495-11	FILM	0.068uF	5%	50V
C904	1-136-495-11	FILM	0.068uF	5%	50V
C905	1-136-156-00	FILM	0.018uF	5%	50V
C906	1-136-156-00	FILM	0.018uF	5%	50V
C907	1-130-480-00	MYLAR	0.0056uF	5%	50V
C908	1-130-479-00	MYLAR	0.0047uF	5%	50V
C909	1-130-474-00	MYLAR	0.0018uF	5%	50V

Ref. No.	Part No.	Description			Remark
C910	1-126-964-11	ELECT	10uF	20%	50V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-136-167-00	FILM	0.15uF	5%	50V
C913	1-136-167-00	FILM	0.15uF	5%	50V
C914	1-126-964-11	ELECT	10uF	20%	50V
C915	1-136-153-00	FILM	0.01uF	5%	50V
C930	1-136-167-00	FILM	0.15uF	5%	50V
C931	1-162-294-31	CERAMIC	0.001uF	10%	50V
C933	1-124-902-00	ELECT	0.47uF	20%	50V
C935	1-164-159-11	CERAMIC	0.1uF	50%	50V
C936	1-126-964-11	ELECT	10uF	20%	50V
C938	1-162-282-31	CERAMIC	100PF	10%	50V
C943	1-126-964-11	ELECT	10uF	20%	50V
C944	1-126-964-11	ELECT	10uF	20%	50V
C950	1-126-964-11	ELECT	10uF	20%	50V
C951	1-124-464-11	ELECT	0.22uF	20%	50V
C952	1-124-464-11	ELECT	0.22uF	20%	50V
C953	1-136-495-11	FILM	0.068uF	5%	50V
C954	1-136-495-11	FILM	0.068uF	5%	50V
C955	1-136-156-00	FILM	0.018uF	5%	50V
C956	1-136-156-00	FILM	0.018uF	5%	50V
C957	1-130-480-00	MYLAR	0.0056uF	5%	50V
C958	1-130-479-00	MYLAR	0.0047uF	5%	50V
C959	1-130-474-00	MYLAR	0.0018uF	5%	50V
C960	1-126-964-11	ELECT	10uF	20%	50V
C961	1-126-964-11	ELECT	10uF	20%	50V
C962	1-136-167-00	FILM	0.15uF	5%	50V
C963	1-136-167-00	FILM	0.15uF	5%	50V
C964	1-126-964-11	ELECT	10uF	20%	50V
C965	1-136-153-00	FILM	0.01uF	5%	50V
C1001	1-126-937-11	ELECT	4700uF	20%	16V
C1002	1-126-943-11	ELECT	2200uF	20%	25V
C1004	1-126-916-11	ELECT	1000uF	20%	6.3V
C1005	1-126-964-11	ELECT	10uF	20%	50V
C1006	1-126-925-11	ELECT	470uF	20%	10V
C1007	1-126-934-11	ELECT	220uF	20%	16V
C1008	1-126-933-11	ELECT	100uF	20%	16V
C1009	1-162-294-31	CERAMIC	0.001uF	10%	50V
C1010	1-164-159-11	CERAMIC	0.1uF	50%	50V
C1011	1-164-159-11	CERAMIC	0.1uF	50%	50V
C1012	1-126-964-11	ELECT	10uF	20%	50V
C1013	1-126-916-11	ELECT	1000uF	20%	6.3V
C1014	1-126-964-11	ELECT	10uF	20%	50V
C1015	1-126-964-11	ELECT	10uF	20%	50V
C1016	1-126-925-11	ELECT	470uF	20%	10V
C1017	1-126-925-11	ELECT	470uF	20%	10V
C1018	1-126-942-61	ELECT	1000uF	20%	25V
C1020	1-126-947-11	ELECT	47uF	20%	35V
C1021	1-162-294-31	CERAMIC	0.001uF	10%	50V
C1022	1-126-969-11	ELECT	220uF	20%	50V
C1023	1-126-969-11	ELECT	220uF	20%	50V
C1024	1-126-964-11	ELECT	10uF	20%	50V

	Ref. No.	Part No.	Description	Remark
	C1025	1-126-964-11	ELECT 10uF 20% 50V	
	C1026	1-126-964-11	ELECT 10uF 20% 50V	
	C1027	1-126-964-11	ELECT 10uF 20% 50V	
	C1028	1-126-933-11	ELECT 100uF 20% 16V	
	C1290	1-126-963-11	ELECT 4.7uF 20% 50V	(EXCEPT AEP,G,IT,UK,CIS,EE)
	C1291	1-164-159-11	CERAMIC 0.1uF 50% 50V	(EXCEPT AEP,G,IT,UK,CIS,EE)

< CONNECTOR >

	Ref. No.	Part No.	Description	Remark
	CN201	1-770-067-11	CONNECTOR, FFC/FPC 19P	
*	CN202	1-568-936-11	PIN, CONNECTOR 9P (TH,IA)	
*	CN203	1-568-935-11	PIN, CONNECTOR 8P (TH,IA)	
*	CN250	1-568-834-11	SOCKET, CONNECTOR 15P	(EXCEPT US,CND,E2,AUS,AR,MX)
*	CN250	1-568-832-11	SOCKET, CONNECTOR 13P	(US,CND,E2,AUS,AR,MX)
	CN401	1-568-838-11	SOCKET, CONNECTOR 21P	
*	CN402	1-568-830-11	SOCKET, CONNECTOR 11P	
*	CN404	1-568-449-11	HOUSING, CONNECTOR (PC BOARD)3P	
*	CN701	1-568-832-11	SOCKET, CONNECTOR 13P	
*	CN1001	1-770-734-11	CONNECTOR, BOARD TO BOARD 20P	
	CN1204	1-564-505-11	PLUG, CONNECTOR 2P	(EXCEPT AEP,G,IT,UK,CIS,EE)

< DIODE >

Ref. No.	Part No.	Description	Remark
D201	8-719-987-63	DIODE 1N4148M	
D202	8-719-987-63	DIODE 1N4148M	
D251	8-719-987-63	DIODE 1N4148M-TP (AEP,G,IT,UK,EE)	
D401	8-719-933-54	DIODE HZS9A2L	
D701	8-719-987-63	DIODE 1N4148M	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-987-63	DIODE 1N4148M	
D705	8-719-987-63	DIODE 1N4148M	
D706	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D706	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D707	8-719-987-63	DIODE 1N4148M	
D801	8-719-987-63	DIODE 1N4148M	
D802	8-719-987-63	DIODE 1N4148M	
D901	8-719-987-63	DIODE 1N4148M	
D902	8-719-987-63	DIODE 1N4148M	
D1001	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1001	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1002	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1002	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1003	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1003	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1004	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1004	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1005	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1005	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1006	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1006	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1007	8-719-987-63	DIODE 1N4148M	
D1008	8-719-001-43	DIODE UZL-11M1-TA (IA)	
D1008	8-719-001-42	DIODE UZL-11M1 (EXCEPT IA)	
D1009	8-719-987-63	DIODE 1N4148M	
D1010	8-719-987-63	DIODE 1N4148M	
D1011	8-719-010-43	DIODE UZ-5.6BSC	
D1012	8-719-934-22	DIODE UZL-30M-TP (EXCEPT IA)	
D1012	8-719-011-05	DIODE UZ-27BS-TA (IA)	
D1013	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1013	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1014	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1014	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1015	8-719-987-63	DIODE 1N4148M	
D1016	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1016	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1017	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1017	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1018	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1018	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1021	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1021	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1022	8-719-200-82	DIODE 11ES2-NTA1B (IA)	
D1022	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1023	8-719-210-21	DIODE 11EQS04	
D1024	8-719-210-21	DIODE 11EQS04	
D1025	8-719-210-21	DIODE 11EQS04	

< TERMINAL BOARD >

Ref. No.	Part No.	Description	Remark
EPT1001	1-537-770-21	TERMINAL BOARD, GROUND	

< IC >

Ref. No.	Part No.	Description	Remark
IC201	8-749-923-04	IC TOTX178	
IC250	8-759-169-99	IC SAA6579 (AEP,G,IT,UK,EE)	
IC251	8-759-634-51	IC NJM4558D (AEP,G,IT,UK,EE)	
IC401	8-759-289-38	IC HA12195NT	
IC402	8-759-822-09	IC LB1641	
IC701	8-759-375-44	IC TMP87CS64YF-6361	
IC702	8-759-165-80	IC PST600C-T	
IC802	8-759-000-48	IC MC14052BCP	
IC806	8-759-265-83	IC M65843FP	
IC807	8-759-140-53	IC uPD4053BC	
IC808	8-759-634-51	IC M5218AP	
IC901	8-759-331-39	IC M62427FP	
IC902	8-759-634-51	IC M5218AP	
IC1001	8-759-231-53	IC TA7805S	
IC1002	8-759-604-86	IC M5F7807L	
IC1003	8-759-604-86	IC M5F7807L	
IC1004	8-759-604-90	IC M5F7907L	

MAIN

Ref. No.	Part No.	Description			Remark
		< JACK >			
J801	1-695-188-31	JACK, PIN 4P (VIDEO,MD/AUDIO IN/OUT)			
		< COIL >			
L250	1-410-521-11	INDUCTOR	100uH (AEP,G,IT,UK,EE)		
L840	1-410-521-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q301	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q351	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q402	8-729-900-65	TRANSISTOR	DTA144ES		
Q403	8-729-801-93	TRANSISTOR	2SD1387		
Q406	8-729-900-80	TRANSISTOR	DTC114ES		
Q407	8-729-422-57	TRANSISTOR	UN4111		
Q408	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q409	8-729-900-80	TRANSISTOR	DTC114ES		
Q410	8-729-900-65	TRANSISTOR	DTA144ES		
Q411	8-729-900-65	TRANSISTOR	DTA144ES		
Q412	8-729-900-65	TRANSISTOR	DTA144ES		
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q801	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q802	8-729-422-57	TRANSISTOR	UN4111		
Q803	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q804	8-729-422-57	TRANSISTOR	UN4111		
Q805	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q806	8-729-422-57	TRANSISTOR	UN4111		
Q807	8-729-900-80	TRANSISTOR	DTC114ES		
Q808	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q809	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q820	8-729-422-57	TRANSISTOR	UN4111		
Q901	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q902	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q951	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q952	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q953	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q954	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q1001	8-729-118-01	TRANSISTOR	2SB1116-K		
Q1002	8-729-900-36	TRANSISTOR	DTC124ES		
Q1003	8-729-030-18	TRANSISTOR	2SD2525		
Q1006	8-729-030-19	TRANSISTOR	2SB1640		
Q1290	8-729-119-76	TRANSISTOR	2SA1175-HFE (EXCEPT AEP,G,IT,UK,CIS,EE)		
Q1291	8-729-111-29	TRANSISTOR	2SD1616A-K (EXCEPT AEP,G,IT,UK,CIS,EE)		
		< RESISTOR >			
R201	1-249-415-11	CARBON	680	5%	1/4W
R202	1-249-435-11	CARBON	33K	5%	1/4W
R211	1-249-415-11	CARBON	680	5%	1/4W
R212	1-249-435-11	CARBON	33K	5%	1/4W
R220	1-247-807-31	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remark
R221	1-247-807-31	CARBON	100	5%	1/4W
R222	1-247-807-31	CARBON	100	5%	1/4W
R223	1-247-807-31	CARBON	100	5%	1/4W
R224	1-247-807-31	CARBON	100	5%	1/4W
R250	1-249-421-11	CARBON	2.2K	5%	1/4W (AEP,G,IT,UK,EE)
R251	1-249-401-11	CARBON	47	5%	1/4W (AEP,G,IT,UK,EE)
R252	1-249-441-11	CARBON	100K	5%	1/4W (AEP,G,IT,UK,EE)
R253	1-249-441-11	CARBON	100K	5%	1/4W (AEP,G,IT,UK,EE)
R254	1-249-426-11	CARBON	5.6K	5%	1/4W (AEP,G,IT,UK,EE)
R255	1-249-429-11	CARBON	10K	5%	1/4W (AEP,G,IT,UK,EE)
R256	1-247-807-31	CARBON	100	5%	1/4W (AEP,G,IT,UK,EE)
R301	1-249-430-11	CARBON	12K	5%	1/4W
R302	1-249-431-11	CARBON	15K	5%	1/4W
R303	1-249-432-11	CARBON	18K	5%	1/4W
R304	1-249-428-11	CARBON	8.2K	5%	1/4W
R305	1-249-425-11	CARBON	4.7K	5%	1/4W
R306	1-247-840-00	CARBON	2.4K	5%	1/4W
R307	1-249-433-11	CARBON	22K	5%	1/4W
R308	1-249-421-11	CARBON	2.2K	5%	1/4W
R309	1-249-428-11	CARBON	8.2K	5%	1/4W
R310	1-249-417-11	CARBON	1K	5%	1/4W
R351	1-249-430-11	CARBON	12K	5%	1/4W
R352	1-249-431-11	CARBON	15K	5%	1/4W
R354	1-249-428-11	CARBON	8.2K	5%	1/4W
R355	1-249-425-11	CARBON	4.7K	5%	1/4W
R356	1-247-840-00	CARBON	2.4K	5%	1/4W
R357	1-249-433-11	CARBON	22K	5%	1/4W
R358	1-249-421-11	CARBON	2.2K	5%	1/4W
R359	1-249-428-11	CARBON	8.2K	5%	1/4W
R360	1-249-417-11	CARBON	1K	5%	1/4W
R401	1-249-425-11	CARBON	4.7K	5%	1/4W
R402	1-249-425-11	CARBON	4.7K	5%	1/4W
R403	1-249-425-11	CARBON	4.7K	5%	1/4W
R404	1-249-417-11	CARBON	1K	5%	1/4W
R405	1-249-437-11	CARBON	47K	5%	1/4W
R406	1-249-437-11	CARBON	47K	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W
R408	1-249-437-11	CARBON	47K	5%	1/4W
R409	1-249-429-11	CARBON	10K	5%	1/4W
R410	1-247-882-11	CARBON	130K	5%	1/4W
R411	1-247-866-11	CARBON	30K	5%	1/4W
R412	1-249-429-11	CARBON	10K	5%	1/4W
R413	1-247-864-11	CARBON	24K	5%	1/4W
R414	1-249-429-11	CARBON	10K	5%	1/4W
R415	1-249-429-11	CARBON	10K	5%	1/4W
R416	1-249-429-11	CARBON	10K	5%	1/4W
R417	1-249-429-11	CARBON	10K	5%	1/4W
R418	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description				Remark
R419	1-249-429-11	CARBON	10K	5%	1/4W	
R420	1-249-429-11	CARBON	10K	5%	1/4W	
R421	1-249-429-11	CARBON	10K	5%	1/4W	
R454	1-249-433-11	CARBON	22K	5%	1/4W	
R455	1-249-433-11	CARBON	22K	5%	1/4W	
R456	1-249-411-11	CARBON	330	5%	1/4W	
R457	1-249-427-11	CARBON	6.8K	5%	1/4W	
R458	1-249-429-11	CARBON	10K	5%	1/4W	
R461	1-249-417-11	CARBON	1K	5%	1/4W	
R701	1-249-429-11	CARBON	10K	5%	1/4W	
R702	1-249-437-11	CARBON	47K	5%	1/4W	
R703	1-249-437-11	CARBON	47K	5%	1/4W	
R704	1-249-429-11	CARBON	10K	5%	1/4W	
R705	1-249-429-11	CARBON	10K	5%	1/4W	
R706	1-249-429-11	CARBON	10K	5%	1/4W	
R708	1-249-429-11	CARBON	10K	5%	1/4W	
R709	1-249-441-11	CARBON	100K	5%	1/4W	
R710	1-249-429-11	CARBON	10K	5%	1/4W	
R712	1-249-429-11	CARBON	10K	5%	1/4W	
R713	1-249-429-11	CARBON	10K	5%	1/4W	
R714	1-249-429-11	CARBON	10K	5%	1/4W	
R715	1-249-429-11	CARBON	10K	5%	1/4W	
R716	1-247-807-31	CARBON	100	5%	1/4W	
R717	1-247-807-31	CARBON	100	5%	1/4W	
R718	1-247-807-31	CARBON	100	5%	1/4W	
R719	1-247-807-31	CARBON	100	5%	1/4W	
R720	1-247-807-31	CARBON	100	5%	1/4W	
R721	1-247-807-31	CARBON	100	5%	1/4W	
R722	1-247-807-31	CARBON	100	5%	1/4W	(AEP,G,IT,UK,EE)
R723	1-247-807-31	CARBON	100	5%	1/4W	(AEP,G,IT,UK,EE)
R724	1-247-807-31	CARBON	100	5%	1/4W	
R725	1-247-807-31	CARBON	100	5%	1/4W	
R726	1-247-807-31	CARBON	100	5%	1/4W	
R727	1-247-807-31	CARBON	100	5%	1/4W	
R728	1-247-807-31	CARBON	100	5%	1/4W	
R729	1-247-807-31	CARBON	100	5%	1/4W	
R730	1-247-807-31	CARBON	100	5%	1/4W	
R731	1-247-807-31	CARBON	100	5%	1/4W	
R732	1-247-807-31	CARBON	100	5%	1/4W	
R733	1-247-807-31	CARBON	100	5%	1/4W	
R734	1-247-807-31	CARBON	100	5%	1/4W	
R735	1-247-807-31	CARBON	100	5%	1/4W	
R736	1-247-807-31	CARBON	100	5%	1/4W	
R737	1-247-807-31	CARBON	100	5%	1/4W	
R740	1-249-433-11	CARBON	22K	5%	1/4W	(CIS)
R740	1-249-429-11	CARBON	10K	5%	1/4W	(AEP,UK)
R740	1-249-427-11	CARBON	6.8K	5%	1/4W	(G,IT,AR,MX,E2,H881D:US,CND)
R740	1-249-415-11	CARBON	680	5%	1/4W	(JE)
R740	1-249-423-11	CARBON	3.3K	5%	1/4W	(AUS)
R740	1-249-435-11	CARBON	33K	5%	1/4W	(EE)
R741	1-249-423-11	CARBON	3.3K	5%	1/4W	(AEP,G,IT,UK)
R741	1-249-425-11	CARBON	4.7K	5%	1/4W	(AR,MX,E2,H881D:US,CND)
R741	1-249-429-11	CARBON	10K	5%	1/4W	(AUS)
R741	1-249-431-11	CARBON	15K	5%	1/4W	(JE)
R741	1-249-421-11	CARBON	2.2K	5%	1/4W	(CIS)
R741	1-249-427-11	CARBON	6.8K	5%	1/4W	(EE)
R742	1-249-413-11	CARBON	470	5%	1/4W	
R743	1-247-807-31	CARBON	100	5%	1/4W	
R744	1-247-807-31	CARBON	100	5%	1/4W	
R745	1-247-807-31	CARBON	100	5%	1/4W	
R753	1-247-807-31	CARBON	100	5%	1/4W	
R755	1-247-807-31	CARBON	100	5%	1/4W	
R757	1-247-807-31	CARBON	100	5%	1/4W	
R758	1-247-807-31	CARBON	100	5%	1/4W	
R759	1-247-807-31	CARBON	100	5%	1/4W	
R760	1-247-807-31	CARBON	100	5%	1/4W	
R761	1-247-807-31	CARBON	100	5%	1/4W	
R762	1-249-429-11	CARBON	10K	5%	1/4W	
R763	1-249-429-11	CARBON	10K	5%	1/4W	
R764	1-247-807-31	CARBON	100	5%	1/4W	
R769	1-249-417-11	CARBON	1K	5%	1/4W	
R771	1-247-807-31	CARBON	100	5%	1/4W	
R772	1-247-807-31	CARBON	100	5%	1/4W	
R773	1-247-807-31	CARBON	100	5%	1/4W	
R774	1-247-807-31	CARBON	100	5%	1/4W	
R775	1-247-807-31	CARBON	100	5%	1/4W	
R777	1-249-429-11	CARBON	10K	5%	1/4W	
R778	1-249-429-11	CARBON	10K	5%	1/4W	
R810	1-249-417-11	CARBON	1K	5%	1/4W	
R811	1-249-417-11	CARBON	1K	5%	1/4W	
R821	1-249-423-11	CARBON	3.3K	5%	1/4W	
R822	1-249-427-11	CARBON	6.8K	5%	1/4W	
R823	1-249-417-11	CARBON	1K	5%	1/4W	
R824	1-249-441-11	CARBON	100K	5%	1/4W	
R825	1-247-887-00	CARBON	220K	5%	1/4W	
R826	1-249-441-11	CARBON	100K	5%	1/4W	
R827	1-249-429-11	CARBON	10K	5%	1/4W	
R837	1-249-429-11	CARBON	10K	5%	1/4W	
R838	1-249-431-11	CARBON	15K	5%	1/4W	
R839	1-249-431-11	CARBON	15K	5%	1/4W	
R840	1-249-399-11	CARBON	33	5%	1/4W	
R841	1-249-421-11	CARBON	2.2K	5%	1/4W	

MAIN

Ref. No.	Part No.	Description			Remark
R842	1-249-433-11	CARBON	22K	5%	1/4W
R843	1-249-431-11	CARBON	15K	5%	1/4W
R844	1-249-431-11	CARBON	15K	5%	1/4W
R845	1-249-429-11	CARBON	10K	5%	1/4W
R846	1-249-431-11	CARBON	15K	5%	1/4W
R847	1-249-417-11	CARBON	1K	5%	1/4W
R848	1-247-903-00	CARBON	1M	5%	1/4W
R849	1-249-427-11	CARBON	6.8K	5%	1/4W
R860	1-249-437-11	CARBON	47K	5%	1/4W
R861	1-249-431-11	CARBON	15K	5%	1/4W
R862	1-249-427-11	CARBON	6.8K	5%	1/4W
R863	1-247-887-00	CARBON	220K	5%	1/4W
R864	1-247-887-00	CARBON	220K	5%	1/4W
R865	1-247-887-00	CARBON	220K	5%	1/4W
R866	1-249-441-11	CARBON	100K	5%	1/4W
R867	1-249-441-11	CARBON	100K	5%	1/4W
R868	1-249-441-11	CARBON	100K	5%	1/4W
R871	1-249-423-11	CARBON	3.3K	5%	1/4W
R872	1-249-427-11	CARBON	6.8K	5%	1/4W
R873	1-249-417-11	CARBON	1K	5%	1/4W
R874	1-249-441-11	CARBON	100K	5%	1/4W
R875	1-249-429-11	CARBON	10K	5%	1/4W
R876	1-249-429-11	CARBON	10K	5%	1/4W
R877	1-249-429-11	CARBON	10K	5%	1/4W
R880	1-249-421-11	CARBON	2.2K	5%	1/4W
R881	1-249-421-11	CARBON	2.2K	5%	1/4W
R882	1-249-417-11	CARBON	1K	5%	1/4W
R883	1-249-429-11	CARBON	10K	5%	1/4W
R884	1-249-423-11	CARBON	3.3K	5%	1/4W
R885	1-249-437-11	CARBON	47K	5%	1/4W
R887	1-249-431-11	CARBON	15K	5%	1/4W
R888	1-249-429-11	CARBON	10K	5%	1/4W
R890	1-249-433-11	CARBON	22K	5%	1/4W
R891	1-249-433-11	CARBON	22K	5%	1/4W
R892	1-249-441-11	CARBON	100K	5%	1/4W
R893	1-249-433-11	CARBON	22K	5%	1/4W
R894	1-249-417-11	CARBON	1K	5%	1/4W
R895	1-249-433-11	CARBON	22K	5%	1/4W
R901	1-249-425-11	CARBON	4.7K	5%	1/4W
R902	1-249-429-11	CARBON	10K	5%	1/4W
R903	1-249-437-11	CARBON	47K	5%	1/4W
R905	1-249-441-11	CARBON	100K	5%	1/4W
R906	1-247-903-00	CARBON	1M	5%	1/4W
R907	1-249-441-11	CARBON	100K	5%	1/4W
R908	1-249-429-11	CARBON	10K	5%	1/4W
R909	1-249-417-11	CARBON	1K	5%	1/4W
R910	1-249-429-11	CARBON	10K	5%	1/4W
R911	1-249-421-11	CARBON	2.2K	5%	1/4W
R912	1-249-441-11	CARBON	100K	5%	1/4W
R913	1-249-429-11	CARBON	10K	5%	1/4W
R914	1-249-437-11	CARBON	47K	5%	1/4W
R915	1-249-441-11	CARBON	100K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R916	1-249-441-11	CARBON	100K	5%	1/4W
R917	1-249-431-11	CARBON	15K	5%	1/4W
R920	1-249-441-11	CARBON	100K	5%	1/4W
R921	1-249-437-11	CARBON	47K	5%	1/4W
R922	1-247-903-00	CARBON	1M	5%	1/4W
R923	1-249-429-11	CARBON	10K	5%	1/4W
R924	1-247-903-00	CARBON	1M	5%	1/4W
R930	1-249-433-11	CARBON	22K	5%	1/4W
R931	1-249-433-11	CARBON	22K	5%	1/4W
R932	1-249-429-11	CARBON	10K	5%	1/4W
R933	1-247-903-00	CARBON	1M	5%	1/4W
R938	1-247-807-31	CARBON	100	5%	1/4W
R939	1-247-807-31	CARBON	100	5%	1/4W
R940	1-249-429-11	CARBON	10K	5%	1/4W
R941	1-249-429-11	CARBON	10K	5%	1/4W
R942	1-249-429-11	CARBON	10K	5%	1/4W
R947	1-247-807-31	CARBON	100	5%	1/4W
R951	1-249-425-11	CARBON	4.7K	5%	1/4W
R952	1-249-429-11	CARBON	10K	5%	1/4W
R953	1-249-437-11	CARBON	47K	5%	1/4W
R955	1-249-441-11	CARBON	100K	5%	1/4W
R956	1-247-903-00	CARBON	1M	5%	1/4W
R957	1-249-441-11	CARBON	100K	5%	1/4W
R958	1-249-429-11	CARBON	10K	5%	1/4W
R959	1-249-417-11	CARBON	1K	5%	1/4W
R960	1-249-429-11	CARBON	10K	5%	1/4W
R961	1-249-421-11	CARBON	2.2K	5%	1/4W
R962	1-249-441-11	CARBON	100K	5%	1/4W
R963	1-249-429-11	CARBON	10K	5%	1/4W
R964	1-249-437-11	CARBON	47K	5%	1/4W
R965	1-249-441-11	CARBON	100K	5%	1/4W
R966	1-249-441-11	CARBON	100K	5%	1/4W
R967	1-249-431-11	CARBON	15K	5%	1/4W
R973	1-249-429-11	CARBON	10K	5%	1/4W
R974	1-247-903-00	CARBON	1M	5%	1/4W
R1001	1-249-421-11	CARBON	2.2K	5%	1/4W
R1002	1-249-409-11	CARBON	220	5%	1/4W
R1003	1-249-417-11	CARBON	1K	5%	1/4W
R1006	1-249-417-11	CARBON	1K	5%	1/4W
R1020	1-249-409-11	CARBON	220	5%	1/4W
R1021	1-249-409-11	CARBON	220	5%	1/4W
R1022	1-249-421-11	CARBON	2.2K	5%	1/4W
R1023	1-249-417-11	CARBON	1K	5%	1/4W
R1296	1-249-425-11	CARBON	4.7K	5%	1/4W
			(EXCEPT AEP,G,IT,UK,CIS,EE)		
R1297	1-249-435-11	CARBON	33K	5%	1/4W
			(EXCEPT AEP,G,IT,UK,CIS,EE)		
R1298	1-249-421-11	CARBON	2.2K	5%	1/4W
			(EXCEPT AEP,G,IT,UK,CIS,EE)		

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV301	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL L)	
RV351	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL R)	
		< VIBRATOR >	
X81	1-579-900-11	VIBRATOR, CRYSTAL (4.332MHz)	(AEP,G,IT,UK,EE)
X701	1-579-175-11	VIBRATOR, CERAMIC (10MHz)	
X701	1-760-904-21	VIBRATOR, CERAMIC (10MHz)	
X702	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)	
X801	1-527-978-00	OSCILLATOR, CERAMIC (320kHz)	
**			
*	1-658-578-12	MOTOR (SLIDE) BOARD ******************	
		< CAPACITOR >	
C801	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C804	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C805	1-126-964-11	ELECT 10uF 20% 50V	
		< CONNECTOR >	
* CN801	1-568-947-11	PIN, CONNECTOR 9P	
		< DIODE >	
D801	8-719-010-43	DIODE UZ-5.6BSC-TP	
		< IC >	
IC801	8-759-274-09	IC BA6286N	
		< RESISTOR >	
R801	1-249-401-11	CARBON 47 5% 1/4W	
		< SWITCH >	
S801	1-762-527-11	SWITCH, ROTARY (OPEN SW)	
**			
*	1-658-577-11	MOTOR (TURN) BOARD ******************	
		< CAPACITOR >	
C701	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C702	1-126-964-11	ELECT 10uF 20% 50V	
C705	1-162-306-11	CERAMIC 0.01uF 30% 16V	
		< CONNECTOR >	
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P	
CN704	1-506-469-11	PIN, CONNECTOR 4P	
		< DIODE >	
D701	8-719-010-23	DIODE UZ-3.6BSB-TP	
		< IC >	
IC701	8-759-633-65	IC M54641L	
		< RESISTOR >	
R706	1-249-411-11	CARBON 330 5% 1/4W	
**			
*	A-4389-026-A	PANEL BOARD, COMPLETE (AR,AUS,MX,E2,EE,TH)	
*	A-4389-024-A	PANEL BOARD, COMPLETE (US,CND)	
*	A-4389-025-A	PANEL BOARD, COMPLETE (AEP,G,IT,UK)	
*	A-4389-027-A	PANEL BOARD, COMPLETE (EA,E3,HK,JE,MY,SP,CIS,TW) *********************	
*	4-932-810-11	CUSHION (FL)	
*	4-971-014-11	HOLDER, FL TUBE	
		< CAPACITOR >	
C500	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C501	1-126-154-11	ELECT 47uF 20% 6.3V	
C502	1-162-282-31	CERAMIC 100PF 10% 50V	
C504	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C505	1-126-154-11	ELECT 47uF 20% 6.3V	
C506	1-126-160-11	ELECT 1uF 20% 50V	
C507	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C508	1-126-160-11	ELECT 1uF 20% 50V	
C509	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C510	1-162-282-31	CERAMIC 100PF 10% 50V	
C511	1-162-282-31	CERAMIC 100PF 10% 50V	
C512	1-162-282-31	CERAMIC 100PF 10% 50V	
C513	1-162-282-31	CERAMIC 100PF 10% 50V	
C514	1-162-282-31	CERAMIC 100PF 10% 50V	
C515	1-162-282-31	CERAMIC 100PF 10% 50V	
C516	1-162-282-31	CERAMIC 100PF 10% 50V	
C517	1-162-282-31	CERAMIC 100PF 10% 50V	
C518	1-162-282-31	CERAMIC 100PF 10% 50V	
C519	1-162-282-31	CERAMIC 100PF 10% 50V	
C520	1-162-282-31	CERAMIC 100PF 10% 50V	
C521	1-162-282-31	CERAMIC 100PF 10% 50V	
C522	1-162-282-31	CERAMIC 100PF 10% 50V	
C523	1-162-282-31	CERAMIC 100PF 10% 50V	
C524	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C525	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C526	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C527	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C530	1-126-160-11	ELECT 1uF 20% 50V	
C531	1-136-161-00	FILM 0.047uF 5% 50V	
C532	1-124-464-11	ELECT 0.22uF 20% 50V	
C533	1-124-464-11	ELECT 0.22uF 20% 50V	
C534	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C535	1-124-464-11	ELECT 0.22uF 20% 50V	
C536	1-136-159-00	FILM 0.033uF 5% 50V	

PANEL

Ref. No.	Part No.	Description			Remark
C537	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C538	1-124-464-11	ELECT	0.22uF	20%	50V
C539	1-162-288-31	CERAMIC	330PF	10%	50V
C540	1-124-464-11	ELECT	0.22uF	20%	50V
C641	1-126-163-11	ELECT	4.7uF	20%	50V
		< CONNECTOR >			
* CN500	1-568-856-11	SOCKET, CONNECTOR 13P			
* CN502	1-568-947-11	PIN, CONNECTOR 9P			
* CN503	1-568-946-11	PIN, CONNECTOR 8P			
		< DIODE >			
D500	8-719-058-03	LED	SEL5423E-TP15 (TUNER/BAND)		
D501	8-719-033-06	LED	SEL5920A (CLIP C)		
D502	8-719-033-06	LED	SEL5920A (DSP)		
D502A	8-719-033-06	LED	SEL5920A (DSP)		
D503	8-719-033-06	LED	SEL5920A (CLIP B)		
D504	8-719-033-06	LED	SEL5920A (DIGITAL ECHO)		
D504A	8-719-033-06	LED	SEL5920A (DIGITAL ECHO)		
D505	8-719-033-06	LED	SEL5920A (CLIP A)		
D506	8-719-058-17	LED	LNJ401NPYTJA (GROOVE)		
D507	8-719-057-09	LED	LNJ801LPDJA (EFFECT ON/OFF)		
D529	8-719-033-06	LED	SEL5920A (CD)		
D531	8-719-033-06	LED	SEL5920A (1/ALL DISCS)		
D533	8-719-033-06	LED	SEL5920A (PLAY MODE)		
D535	8-719-033-06	LED	SEL5920A (REPEAT)		
D537	8-719-033-06	LED	SEL5920A (EDIT)		
D539	8-719-033-06	LED	SEL5920A (TUNER)		
D541	8-719-033-06	LED	SEL5920A (TUNING MODE)		
D543	8-719-033-06	LED	SEL5920A (TUNER MEMORY)		
D545	8-719-033-06	LED	SEL5920A (STEREO MONO)		
D547	8-719-033-06	LED	SEL5920A (PTY)		
D549	8-719-033-06	LED	SEL5920A (TIMER)		
D551	8-719-033-06	LED	SEL5920A (CLOCK SET)		
D553	8-719-033-06	LED	SEL5920A (⊙ SET)		
D555	8-719-033-06	LED	SEL5920A (⊙ SELECT)		
D557	8-719-033-06	LED	SEL5920A (SLEEP)		
D559	8-719-987-63	DIODE	1N4148M		
D560	8-719-987-63	DIODE	1N4148M		
D561	8-719-987-63	DIODE	1N4148M		
D562	8-719-987-63	DIODE	1N4148M		
D563	8-719-987-63	DIODE	1N4148M		
		< INDICATOR TUBE >			
FL501	1-517-483-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC500	8-759-375-43	IC	ASD0204-012-3BA		
IC501	8-759-332-18	IC	GP1U27XB		

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q500	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q501	8-729-118-00	TRANSISTOR	2SB1116-L		
Q502	8-729-118-00	TRANSISTOR	2SB1116-L		
Q503	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q504	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q505	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q506	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q514	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q515	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q516	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q517	8-729-111-29	TRANSISTOR	2SD1616A-K		
Q518	8-729-111-29	TRANSISTOR	2SD1616A-K		
Q519	8-729-111-29	TRANSISTOR	2SD1616A-K		
Q520	8-729-119-78	TRANSISTOR	2SC2785-HFE		
		< RESISTOR >			
R500	1-247-887-00	CARBON	220K	5%	1/4W
R501	1-247-903-00	CARBON	1M	5%	1/4W
R502	1-249-429-11	CARBON	10K	5%	1/4W
R503	1-249-429-11	CARBON	10K	5%	1/4W
R504	1-249-429-11	CARBON	10K	5%	1/4W
R505	1-249-429-11	CARBON	10K	5%	1/4W
R506	1-249-429-11	CARBON	10K	5%	1/4W
R507	1-249-429-11	CARBON	10K	5%	1/4W
R508	1-249-429-11	CARBON	10K	5%	1/4W
R510	1-247-807-31	CARBON	100	5%	1/4W
R511	1-247-807-31	CARBON	100	5%	1/4W
R512	1-247-807-31	CARBON	100	5%	1/4W
R513	1-247-807-31	CARBON	100	5%	1/4W
R514	1-247-807-31	CARBON	100	5%	1/4W
R515	1-247-807-31	CARBON	100	5%	1/4W
R516	1-249-441-11	CARBON	100K	5%	1/4W
R517	1-249-419-11	CARBON	1.5K	5%	1/4W
R526	1-249-415-11	CARBON	680	5%	1/4W
R527	1-249-417-11	CARBON	1K	5%	1/4W
R528	1-249-419-11	CARBON	1.5K	5%	1/4W
R529	1-249-421-11	CARBON	2.2K	5%	1/4W
R530	1-249-423-11	CARBON	3.3K	5%	1/4W
R531	1-249-427-11	CARBON	6.8K	5%	1/4W
R532	1-249-431-11	CARBON	15K	5%	1/4W
R533	1-249-419-11	CARBON	1.5K	5%	1/4W
R534	1-249-401-11	CARBON	47	5%	1/4W
R535	1-249-403-11	CARBON	68	5%	1/4W
R536	1-247-807-31	CARBON	100	5%	1/4W
R537	1-249-407-11	CARBON	150	5%	1/4W
R538	1-249-407-11	CARBON	150	5%	1/4W
R539	1-249-409-11	CARBON	220	5%	1/4W
R540	1-249-411-11	CARBON	330	5%	1/4W
R547	1-249-419-11	CARBON	1.5K	5%	1/4W
R548	1-249-401-11	CARBON	47	5%	1/4W
R549	1-249-403-11	CARBON	68	5%	1/4W

Ref. No.	Part No.	Description			Remark
R550	1-247-807-31	CARBON	100	5%	1/4W
R551	1-249-407-11	CARBON	150	5%	1/4W
R552	1-249-407-11	CARBON	150	5%	1/4W
R563	1-249-419-11	CARBON	1.5K	5%	1/4W
R564	1-249-401-11	CARBON	47	5%	1/4W
R565	1-249-413-11	CARBON	470	5%	1/4W
R566	1-249-409-11	CARBON	220	5%	1/4W
R567	1-249-411-11	CARBON	330	5%	1/4W
R576	1-249-429-11	CARBON	10K	5%	1/4W
R577	1-249-421-11	CARBON	2.2K	5%	1/4W
R578	1-249-429-11	CARBON	10K	5%	1/4W
R579	1-249-421-11	CARBON	2.2K	5%	1/4W
R580	1-247-807-31	CARBON	100	5%	1/4W
R581	1-249-407-11	CARBON	150	5%	1/4W
R582	1-249-403-11	CARBON	68	5%	1/4W
R583	1-249-407-11	CARBON	150	5%	1/4W
R584	1-249-403-11	CARBON	68	5%	1/4W
R585	1-249-407-11	CARBON	150	5%	1/4W
R586	1-247-807-31	CARBON	100	5%	1/4W
R587	1-249-407-11	CARBON	150	5%	1/4W
R616	1-247-807-31	CARBON	100	5%	1/4W
R617	1-247-807-31	CARBON	100	5%	1/4W
R618	1-247-807-31	CARBON	100	5%	1/4W
R619	1-247-807-31	CARBON	100	5%	1/4W
R620	1-247-807-31	CARBON	100	5%	1/4W
R621	1-247-807-31	CARBON	100	5%	1/4W
R622	1-247-807-31	CARBON	100	5%	1/4W
R623	1-247-807-31	CARBON	100	5%	1/4W
R624	1-247-807-31	CARBON	100	5%	1/4W
R625	1-247-807-31	CARBON	100	5%	1/4W
R626	1-247-807-31	CARBON	100	5%	1/4W
R627	1-247-807-31	CARBON	100	5%	1/4W
R628	1-247-807-31	CARBON	100	5%	1/4W
R629	1-247-807-31	CARBON	100	5%	1/4W
R630	1-247-807-31	CARBON	100	5%	1/4W
R631	1-247-897-11	CARBON	560K	5%	1/4W
R632	1-247-897-11	CARBON	560K	5%	1/4W
R633	1-247-897-11	CARBON	560K	5%	1/4W
R634	1-247-897-11	CARBON	560K	5%	1/4W
R646	1-249-417-11	CARBON	1K	5%	1/4W
R647	1-249-417-11	CARBON	1K	5%	1/4W
R648	1-249-417-11	CARBON	1K	5%	1/4W
R649	1-249-401-11	CARBON	47	5%	1/4W
R650	1-249-429-11	CARBON	10K	5%	1/4W
R651	1-249-429-11	CARBON	10K	5%	1/4W
R652	1-249-429-11	CARBON	10K	5%	1/4W
R653	1-249-419-11	CARBON	1.5K	5%	1/4W
R654	1-249-437-11	CARBON	47K	5%	1/4W
R655	1-247-895-00	CARBON	470K	5%	1/4W
R656	1-249-419-11	CARBON	1.5K	5%	1/4W
R657	1-249-437-11	CARBON	47K	5%	1/4W
R658	1-247-895-00	CARBON	470K	5%	1/4W
R659	1-249-419-11	CARBON	1.5K	5%	1/4W
R660	1-249-437-11	CARBON	47K	5%	1/4W
R661	1-247-895-00	CARBON	470K	5%	1/4W
R662	1-249-437-11	CARBON	47K	5%	1/4W
R663	1-247-895-00	CARBON	470K	5%	1/4W
R665	1-249-441-11	CARBON	100K	5%	1/4W
R666	1-249-429-11	CARBON	10K	5%	1/4W

< SWITCH >

Ref. No.	Part No.	Description
S509	1-554-303-21	SWITCH, TACTILE (TIMER)
S510	1-554-303-21	SWITCH, TACTILE (DSP)
S511	1-554-303-21	SWITCH, TACTILE (DIGITAL ECHO)
S512	1-554-303-21	SWITCH, TACTILE (1/ALL DISCS)
S513	1-554-303-21	SWITCH, TACTILE (PLAY MODE)
S514	1-554-303-21	SWITCH, TACTILE (REPEAT)
S515	1-554-303-21	SWITCH, TACTILE (EDIT)
S517	1-554-303-21	SWITCH, TACTILE (DISPLAY/DEMO)
S519	1-554-303-21	SWITCH, TACTILE (CLIP PLAY)
S520	1-554-303-21	SWITCH, TACTILE (CLIP ERASE)
S521	1-554-303-21	SWITCH, TACTILE (CLIP A)
S522	1-554-303-21	SWITCH, TACTILE (CLIP B)
S523	1-554-303-21	SWITCH, TACTILE (CLIP C)
S530	1-554-303-21	SWITCH, TACTILE (MENU 1)
S531	1-554-303-21	SWITCH, TACTILE (MENU 2)
S532	1-554-303-21	SWITCH, TACTILE (MENU 3)
S533	1-554-303-21	SWITCH, TACTILE (MENU 4)
S534	1-554-303-21	SWITCH, TACTILE (P.FILE)
S535	1-554-303-21	SWITCH, TACTILE (EFFECT ON/OFF)
S551	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)
S552	1-554-303-21	SWITCH, TACTILE (FUNCTION)
S553	1-554-303-21	SWITCH, TACTILE (GROOVE)

< VIBRATOR >

Ref. No.	Part No.	Description
X500	1-579-233-11	VIBRATOR, CERAMIC (5MHz)
X500	1-760-489-11	VIBRATOR, CERAMIC (5MHz)

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* A-4377-454-A POLAR BOARD, COMPLETE (CIS)

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< CAPACITOR >

Ref. No.	Part No.	Description				Remark
C1701	1-162-294-31	CERAMIC	0.001uF	10%	50V	(CIS)
C1702	1-130-014-00	FILM	470PF	5%	50V	(CIS)
C1703	1-124-902-00	ELECT	0.47uF	20%	50V	(CIS)
C1704	1-124-902-00	ELECT	0.47uF	20%	50V	(CIS)
C1705	1-164-098-11	CERAMIC	0.047uF		12V	(CIS)
C1706	1-124-903-11	ELECT	1uF	20%	50V	(CIS)
C1707	1-162-288-31	CERAMIC	330PF	10%	50V	(CIS)
C1710	1-137-364-11	FILM	0.001uF	5%	50V	(CIS)
C1711	1-137-364-11	FILM	0.001uF	5%	50V	(CIS)
C1712	1-130-736-11	FILM	0.01uF	5%	50V	(CIS)
C1713	1-130-736-11	FILM	0.01uF	5%	50V	(CIS)

POLAR POWER

Ref. No.	Part No.	Description	Remark
C1714	1-124-903-11	ELECT 1uF 20% 50V	(CIS)
C1715	1-124-903-11	ELECT 1uF 20% 50V	(CIS)
C1716	1-124-903-11	ELECT 1uF 20% 50V	(CIS)
C1719	1-104-664-11	ELECT 47uF 20% 16V	(CIS)
C1720	1-162-306-11	CERAMIC 0.01uF 30% 16V	(CIS)
C1723	1-162-306-11	CERAMIC 0.01uF 30% 16V	(CIS)
C1724	1-162-306-11	CERAMIC 0.01uF 30% 16V	(CIS)
C1725	1-104-664-11	ELECT 47uF 20% 16V	(CIS)
C1726	1-124-903-11	ELECT 1uF 20% 50V	(CIS)
C1727	1-124-903-11	ELECT 1uF 20% 50V	(CIS)
C1728	1-104-663-11	ELECT 33uF 20% 16V	(CIS)
		< CONNECTOR >	
* CN1701	1-568-832-11	SOCKET, CONNECTOR 13P (CIS)	
		< TRIMMER >	
CT1701	1-141-260-00	CAP, TRIMMER 50PF (CIS)	
		< DIODE >	
D1701	8-719-987-63	DIODE 1N4148M (CIS)	
D1703	8-719-987-63	DIODE 1N4148M (CIS)	
D1704	8-719-987-63	DIODE 1N4148M (CIS)	
D1705	8-719-987-63	DIODE 1N4148M (CIS)	
		< IC >	
IC1701	8-759-063-04	IC IR3R42 (CIS)	
IC1703	8-759-140-53	IC uPD4053BC (CIS)	
		< COIL >	
L1701	1-409-497-11	COIL (FILTER) (SUB CARRIER) (CIS)	
		< TRANSISTOR >	
Q1701	8-729-900-61	TRANSISTOR DTA114ES (CIS)	
Q1702	8-729-900-80	TRANSISTOR DTC114ES (CIS)	
Q1704	8-729-900-80	TRANSISTOR DTC114ES (CIS)	
		< RESISTOR >	
R1701	1-249-433-11	CARBON 22K 5% 1/4W	(CIS)
R1702	1-249-435-11	CARBON 33K 5% 1/4W	(CIS)
R1703	1-249-427-11	CARBON 6.8K 5% 1/4W	(CIS)
R1704	1-247-858-11	CARBON 13K 5% 1/4W	(CIS)
R1705	1-249-417-11	CARBON 1K 5% 1/4W	(CIS)
R1706	1-249-417-11	CARBON 1K 5% 1/4W	(CIS)
R1707	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)
R1708	1-249-440-11	CARBON 82K 5% 1/4W	(CIS)
R1709	1-249-437-11	CARBON 47K 5% 1/4W	(CIS)
R1710	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R1711	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R1714	1-249-426-11	CARBON 5.6K 5% 1/4W	(CIS)
R1715	1-249-426-11	CARBON 5.6K 5% 1/4W	(CIS)
R1716	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)

Ref. No.	Part No.	Description	Remark
R1717	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)
R1718	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R1719	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R1721	1-249-434-11	CARBON 27K 5% 1/4W	(CIS)
R1722	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)
		< VARIABLE RESISTOR >	
RV1701	1-238-600-11	RES, ADJ, CARBON 10K (SUB CARRIER) (CIS)	
RV1702	1-238-599-11	RES, ADJ, CARBON 4.7K(VCO FREQENCY) (CIS)	
		< TEST PIN >	
* TP1701	1-560-061-00	PIN, CONNECTOR 3P (CIS)	
* TP1702	1-560-061-00	PIN, CONNECTOR 3P (CIS)	
**			
*	A-4389-042-A	POWER BOARD, COMPLETE (AR,AUS,EA,SP,TW,MY,MX,JE,HK,E,TH)	
*	A-4389-040-A	POWER BOARD, COMPLETE (H881:US,CND)	
*	A-4389-041-A	POWER BOARD, COMPLETE (AEP,G,IT,UK,CIS,EE)	
*	A-4389-022-A	POWER BOARD, COMPLETE (H881D:US,CND)	
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	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
		< CAPACITOR >	
C1201	1-126-963-11	ELECT 4.7uF 20% 50V	
C1202	1-162-292-31	CERAMIC 680PF 10% 50V	
C1203	1-162-286-31	CERAMIC 220PF 10% 50V	
C1204	1-126-967-11	ELECT 47uF 20% 50V	
C1205	1-126-967-11	ELECT 47uF 20% 50V	
C1206	1-128-576-11	ELECT 100uF 20% 63V	(EXCEPT AEP,G,IT,UK,CIS,EE)
C1206	1-126-968-11	ELECT 100uF 20% 50V	(AEP,G,IT,UK,CIS,EE)
C1207	1-164-159-11	CERAMIC 0.1uF 50V	
C1208	1-128-551-11	ELECT 22uF 20% 63V	(EXCEPT AEP,G,IT,UK,CIS,EE)
C1208	1-126-965-11	ELECT 22uF 20% 50V	(AEP,G,IT,UK,CIS,EE)
C1210	1-136-165-00	FILM 0.1uF 5% 50V	
C1211	1-136-165-00	FILM 0.1uF 5% 50V	
C1220	1-124-635-00	ELECT 220uF 20% 6.3V	
C1230	1-104-482-11	ELECT 4700uF 20% 63V	(EXCEPT AEP,G,IT,UK,CIS,EE)
C1230	1-126-974-11	ELECT 3300uF 20% 50V	(AEP,G,IT,UK,CIS,EE)
C1231	1-124-635-00	ELECT 220uF 20% 6.3V	
C1232	1-124-635-00	ELECT 220uF 20% 6.3V	
C1233	1-126-963-11	ELECT 4.7uF 20% 50V	
C1234	1-126-933-11	ELECT 100uF 20% 10V	
C1235	1-104-482-11	ELECT 4700uF 20% 63V	(EXCEPT AEP,G,IT,UK,CIS,EE)
C1235	1-126-974-11	ELECT 3300uF 20% 50V	(AEP,G,IT,UK,CIS,EE)
C1251	1-126-963-11	ELECT 4.7uF 20% 50V	

Ref. No.	Part No.	Description			Remark
C1252	1-162-292-31	CERAMIC	680PF	10%	50V
C1253	1-162-286-31	CERAMIC	220PF	10%	50V
C1254	1-126-967-11	ELECT	47uF	20%	50V
C1255	1-126-967-11	ELECT	47uF	20%	50V
C1256	1-128-576-11	ELECT	100uF	20%	63V
					(EXCEPT AEP,G,IT,UK,CIS,EE)
C1256	1-126-968-11	ELECT	100uF	20%	50V
					(AEP,G,IT,UK,CIS,EE)
C1260	1-136-165-00	FILM	0.1uF	5%	50V
C1261	1-136-165-00	FILM	0.1uF	5%	50V
C1270	1-130-781-00	FILM	0.22uF	10%	100V
					(EXCEPT AEP,G,IT,UK,CIS,EE)
C1270	1-136-169-00	FILM	0.22uF	5%	50V
					(AEP,G,IT,UK,CIS,EE)
C1271	1-130-781-00	FILM	0.22uF	10%	100V
					(EXCEPT AEP,G,IT,UK,CIS,EE)
C1271	1-136-169-00	FILM	0.22uF	5%	50V
					(AEP,G,IT,UK,CIS,EE)
C1272	1-136-165-00	FILM	0.1uF	5%	50V
					(AEP,G,IT,UK,CIS,EE)
C1273	1-136-165-00	FILM	0.1uF	5%	50V
					(AEP,G,IT,UK,CIS,EE)
C1276	1-136-165-00	FILM	0.1uF	5%	50V
					(AEP,G,IT,UK,CIS,EE)
C1277	1-136-165-00	FILM	0.1uF	5%	50V
					(AEP,G,IT,UK,CIS,EE)
		< CONNECTOR >			
* CN1201	1-766-957-11	CONNECTOR, BOARD TO BOARD 20P			
* CN1202	1-568-937-11	PIN, CONNECTOR 10P			
* CN1203	1-564-512-11	PLUG, CONNECTOR 9P			
		< DIODE >			
D1201	8-719-815-85	DIODE 1S1585 (EXCEPT AEP,G,IT,UK,CIS,EE)			
D1201	8-719-987-63	DIOD 1N4148M (AEP,G,IT,UK,CIS,EE)			
D1202	8-719-987-63	DIODE 1N4148M			
D1203	8-719-987-63	DIODE 1N4148M			
D1230	8-719-987-63	DIODE 1N4148M			
D1231	8-719-987-63	DIODE 1N4148M			
D1232	8-719-987-63	DIODE 1N4148M			
D1240	8-719-987-63	DIODE 1N4148M			
D1250	8-719-510-68	DIODE D5SBA20F01			
					(EXCEPT AEP,G,IT,UK,CIS,EE)
D1250	8-719-025-03	DIODE RBA-402-SL (AEP,G,IT,UK,CIS,EE)			
D1251	8-719-815-85	DIODE 1S1585 (EXCEPT AEP,G,IT,UK,CIS,EE)			
D1251	8-719-987-63	DIODE 1N4148M (AEP,G,IT,UK,CIS,EE)			
D1270	8-719-987-63	DIODE 1N4148M			
D1271	8-719-987-63	DIODE 1N4148M			
D1272	8-719-987-63	DIODE 1N4148M			
D1290	8-719-815-85	DIODE 1S1585 (EXCEPT AEP,G,IT,UK,CIS,EE)			
D1291	8-719-815-85	DIODE 1S1585 (EXCEPT AEP,G,IT,UK,CIS,EE)			
		< TERMINAL BOARD >			
EPT1201	1-537-770-21	TERMINAL BOARD, GROUND			

Ref. No.	Part No.	Description				Remark
		< IC >				
IC1201	8-749-900-78	IC	STK4192MK2			
						(AR,AUS,EA,SP,MY,MX,JE,HK,E,TW,TH)
IC1201	8-749-921-68	IC	STK4231MK2 (US,CND)			
IC1201	8-749-920-10	IC	STK4172MK2 (AEP,G,IT,UK,CIS,EE)			
IC1201	8-759-502-31	IC	SI-18751 (IA)			
IC1202	8-759-111-68	IC	uPC1237HA			
		< JACK >				
J1201	1-774-785-11	JACK, PIN 1P (SUPER WOOFER)				
						(EXCEPT H881D)
		< COIL >				
L1201	1-420-872-00	COIL, AIR-CORE (AEP,G,IT,UK,CIS,EE)				
L1202	1-420-872-00	COIL, AIR-CORE (AEP,G,IT,UK,CIS,EE)				
		< TRANSISTOR >				
Q1201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			
Q1210	8-729-900-36	TRANSISTOR	DTC124ES			
Q1230	8-729-900-36	TRANSISTOR	DTC124ES			
Q1240	8-729-900-63	TRANSISTOR	DTA124ES			
Q1241	8-729-900-36	TRANSISTOR	DTC124ES			
						(EXCEPT AEP,G,IT,UK,CIS,EE)
Q1242	8-729-119-78	TRANSISTOR	2SC2785-HFE			
						(EXCEPT AEP,G,IT,UK,CIS,EE)
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			
Q1270	8-729-119-78	TRANSISTOR	2SC2785-HFE(US,CND)			
Q1270	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			
						(EXCEPT US,CND)
Q1271	8-729-119-78	TRANSISTOR	2SC2785-HFE(US,CND)			
Q1271	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			
						(EXCEPT US,CND)
		< RESISTOR >				
R1201	1-249-415-11	CARBON	680	5%	1/4W	
R1202	1-249-437-11	CARBON	47K	5%	1/4W	
R1203	1-249-415-11	CARBON	680	5%	1/4W	
R1204	1-249-437-11	CARBON	47K	5%	1/4W	
R1206	1-260-105-11	CARBON	3.3K	5%	1/2W	
						(EXCEPT US,CND)
R1206	1-260-107-11	CARBON	4.7K	5%	1/2W	
						(US,CND)
R1208	1-260-105-11	CARBON	3.3K	5%	1/2W	
						(EXCEPT US,CND)
R1208	1-260-107-11	CARBON	4.7K	5%	1/2W	
						(US,CND)
⚠ R1209	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠ R1210	1-208-601-11	WIREWOUND	0.1	10%	2W	F
						(EXCEPT AEP,G,IT,UK,CIS,EE)
⚠ R1210	1-208-602-11	WIREWOUND	0.22	10%	2W	F
						(AEP,G,IT,UK,CIS,EE)
R1211	1-249-417-11	CARBON	1K	5%	1/4W	
R1212	1-249-433-11	CARBON	22K	5%	1/4W	
						(EXCEPT AEP,G,IT,UK,CIS,EE)
R1212	1-249-431-11	CARBON	15K	5%	1/4W	
						(AEP,G,IT,UK,CIS,EE)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiqués pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

POWER

Ref. No.	Part No.	Description	Remark
R1213	1-249-441-11	CARBON 100K 5% 1/4W	
R1215	1-260-099-11	CARBON 1K 5% 1/2W	
R1216	1-260-099-11	CARBON 1K 5% 1/2W	
R1218	1-260-076-11	CARBON 10 5% 1/2W	
R1227	1-249-417-11	CARBON 1K 5% 1/4W	
R1228	1-247-883-00	CARBON 150K 5% 1/4W	(EXCEPT AEP,G,IT,UK,CIS,EE)
R1228	1-249-441-11	CARBON 100K 5% 1/4W	(AEP,G,IT,UK,CIS,EE)
R1230	1-249-429-11	CARBON 10K 5% 1/4W	
R1231	1-249-429-11	CARBON 10K 5% 1/4W	
R1232	1-249-441-11	CARBON 100K 5% 1/4W	
R1233	1-249-435-11	CARBON 33K 5% 1/4W	
R1234	1-249-397-11	CARBON 22 5% 1/4W	
R1235	1-249-427-11	CARBON 6.8K 5% 1/4W	(EXCEPT US,CND)
R1235	1-247-854-11	CARBON 9.1K 5% 1/4W	(US,CND)
R1236	1-249-427-11	CARBON 6.8K 5% 1/4W	(EXCEPT US,CND)
R1236	1-247-854-11	CARBON 9.1K 5% 1/4W	(US,CND)
R1237	1-249-437-11	CARBON 47K 5% 1/4W	
R1238	1-249-439-11	CARBON 68K 5% 1/4W	
R1239	1-249-429-11	CARBON 10K 5% 1/4W	
R1240	1-249-429-11	CARBON 10K 5% 1/4W	
R1242	1-249-429-11	CARBON 10K 5% 1/4W	
R1243	1-249-397-11	CARBON 22 5% 1/4W	
⚠ R1244	1-217-637-00	FUSIBLE 1 5% 1/4W F	
R1245	1-249-441-11	CARBON 100K 5% 1/4W	(EXCEPT AEP,G,IT,UK,CIS,EE)
R1246	1-249-441-11	CARBON 100K 5% 1/4W	(EXCEPT AEP,G,IT,UK,CIS,EE)
R1247	1-249-435-11	CARBON 33K 5% 1/4W	(EXCEPT AEP,G,IT,UK,CIS,EE)
R1248	1-249-429-11	CARBON 10K 5% 1/4W	
R1249	1-249-441-11	CARBON 100K 5% 1/4W	
R1251	1-249-415-11	CARBON 680 5% 1/4W	
R1252	1-249-437-11	CARBON 47K 5% 1/4W	
R1253	1-249-415-11	CARBON 680 5% 1/4W	
R1254	1-249-437-11	CARBON 47K 5% 1/4W	
R1256	1-260-105-11	CARBON 3.3K 5% 1/2W	(EXCEPT US,CND)
R1256	1-260-107-11	CARBON 4.7K 5% 1/2W	(US,CND)
R1258	1-260-105-11	CARBON 3.3K 5% 1/2W	(EXCEPT US,CND)
R1258	1-260-107-11	CARBON 4.7K 5% 1/2W	(US,CND)
⚠ R1259	1-212-881-11	FUSIBLE 100 5% 1/4W F	
⚠ R1260	1-208-601-11	WIREWOUND 0.1 10% 2W F	(EXCEPT AEP,G,IT,UK,CIS,EE)
⚠ R1260	1-208-602-11	WIREWOUND 0.22 10% 2W F	(AEP,G,IT,UK,CIS,EE)
R1261	1-249-417-11	CARBON 1K 5% 1/4W	
R1262	1-249-433-11	CARBON 22K 5% 1/4W	(EXCEPT AEP,G,IT,UK,CIS,EE)
R1262	1-249-431-11	CARBON 15K 5% 1/4W	(AEP,G,IT,UK,CIS,EE)
R1263	1-249-441-11	CARBON 100K 5% 1/4W	
R1268	1-260-076-11	CARBON 10 5% 1/2W	
R1270	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1271	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1272	1-260-093-11	CARBON 330 5% 1/2W	
R1273	1-260-093-11	CARBON 330 5% 1/2W	
R1274	1-260-093-11	CARBON 330 5% 1/2W	
R1275	1-260-093-11	CARBON 330 5% 1/2W	
R1276	1-260-076-11	CARBON 10 5% 1/2W	(AEP,G,IT,UK,CIS,EE)
R1277	1-260-076-11	CARBON 10 5% 1/2W	(AEP,G,IT,UK,CIS,EE)
R1278	1-260-072-11	CARBON 4.7 5% 1/2W	(AEP,G,IT,UK,CIS,EE)
R1279	1-260-072-11	CARBON 4.7 5% 1/2W	(AEP,G,IT,UK,CIS,EE)
R1280	1-215-892-11	METAL OXIDE 1K 5% 2W F	(AR,AUS,EA,TH,SP,TW,MY,MX,JE,HK,E,IA)
R1280	1-215-891-11	METAL OXIDE 680 5% 2W F	(US,CND)
R1280	1-216-456-00	METAL OXIDE 820 5% 2W F	(AEP,G,IT,UK,CIS,EE)
R1281	1-215-892-11	METAL OXIDE 1K 5% 2W F	(AR,AUS,EA,TH,SP,TW,MY,MX,JE,HK,E,IA)
R1281	1-215-891-11	METAL OXIDE 680 5% 2W F	(US,CND)
R1281	1-216-456-00	METAL OXIDE 820 5% 2W F	(AEP,G,IT,UK,CIS,EE)
R1282	1-249-429-11	CARBON 10K 5% 1/4W	
R1283	1-249-441-11	CARBON 100K 5% 1/4W	
R1284	1-215-892-11	METAL OXIDE 1K 5% 2W F	(AR,AUS,EA,TH,SP,TW,MY,MX,JE,HK,E,IA)
R1284	1-215-893-11	METAL OXIDE 1.5K 5% 2W F	(US,CND)
R1284	1-216-456-00	METAL OXIDE 820 5% 2W F	(AEP,G,IT,UK,CIS,EE)
R1285	1-249-413-11	CARBON 470 5% 1/4W	
R1290	1-249-437-11	CARBON 47K 5% 1/4W	(EXCEPT H881D)
R1291	1-249-421-11	CARBON 2.2K 5% 1/4W	(EXCEPT H881D)
R1293	1-249-437-11	CARBON 47K 5% 1/4W	(EXCEPT H881D)
R1294	1-249-437-11	CARBON 47K 5% 1/4W	(EXCEPT AEP,G,IT,UK,CIS,EE)
R1295	1-249-437-11	CARBON 47K 5% 1/4W	(EXCEPT AEP,G,IT,UK,CIS,EE)
		< RELAY >	
RY1201	1-515-920-11	RELAY (24V) (EXCEPT US,CND)	
RY1201	1-515-356-00	RELAY (US,CND)	
RY1202	1-515-920-11	RELAY (24V) (EXCEPT US,CND)	
RY1202	1-515-356-00	RELAY (US,CND)	
RY1203	1-515-920-11	RELAY (24V)	
		< THERMISTOR (POSITIVE) >	
THP1201	1-807-796-11	THERMISTOR (EXCEPT AEP,UK,G,IT,CIS,EE,IA)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		< TERMINAL >			
TM1201	1-537-925-31	TERMINAL BOARD (SPEAKER)			
TM1202	1-537-925-31	TERMINAL BOARD (SURROUND SPEAKER)			

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Ref. No.	Part No.	Description			Remark
*	1-658-576-12	SENSOR BOARD *************			
		< IC >			
IC702	8-749-924-18	IC PHOTO INTERRUPTER	RPI-1391		
IC703	8-749-924-30	IC PHOTO REFLECTOR	GP2S28		
		< RESISTOR >			
R701	1-249-416-11	CARBON	820	5%	1/4W
R702	1-249-407-11	CARBON	150	5%	1/4W

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Ref. No.	Part No.	Description			Remark
*	A-4303-514-A	TCB BOARD, COMPLETE (AEP,UK)			
*	A-4303-515-A	TCB BOARD, COMPLETE (G,IT)			
*	A-4303-516-A	TCB BOARD, COMPLETE (EE)			
*	A-4303-517-A	TCB BOARD, COMPLETE (CIS)			
*	A-4303-518-A	TCB BOARD, COMPLETE (E3,EA,MY,SP,TW,HK,JE,IA) *******************			
		< CAPACITOR >			
C1	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C2	1-126-967-11	ELECT	47uF	20%	16V
C3	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C5	1-163-031-11	CERAMIC CHIP	0,01uF		50V
C6	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C7	1-101-004-00	CERAMIC	0.01uF		50V (EXCEPT AEP,UK,G,IT)
C8	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C10	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C11	1-163-038-91	CERAMIC CHIP	0.1uF		25V (EXCEPT AEP,UK,G,IT,EE)
C11	1-216-295-11	METAL CHIP	0	5%	1/10W (G,IT)
C14	1-163-038-91	CERAMIC CHIP	0.1uF		25V (EXCEPT AEP,UK,G,IT,EE)
C15	1-136-162-00	CERAMIC	0.056uF		50V (EXCEPT AEP,UK,G,IT,EE)
C16	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C17	1-163-031-11	CERAMIC CHIP	0.01uF		50V (EXCEPT AEP,UK,G,IT,EE)
C18	1-163-088-00	CERAMIC CHIP	5PF		50V (EXCEPT AEP,UK,G,IT,EE)
C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50V (AEP,UK,EE)
C21	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C22	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C23	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C24	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C26	1-126-967-11	ELECT	47uF	20%	16V
C28	1-126-967-11	ELECT	47uF	20%	16V
C29	1-162-306-11	CERAMIC	0.01uF	30%	16V
C30	1-124-925-11	ELECT	2.2uF	20%	100V
C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C32	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C33	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C34	1-163-091-00	CERAMIC CHIP	8PF		50V (EXCEPT AEP,UK,EE)
C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V (AEP,UK,EE)
C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C36	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C37	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C38	1-162-211-31	CERAMIC	33PF	5%	50V (EXCEPT AEP,UK,G,IT,EE)
C39	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C40	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C42	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C43	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C44	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C45	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C47	1-126-967-11	ELECT	47uF	20%	16V
C48	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C49	1-124-902-00	ELECT	0.47uF	20%	50V
C50	1-124-903-11	ELECT	1.0uF	20%	50V
C51	1-124-903-11	ELECT	1.0uF	20%	50V
C52	1-126-964-11	ELECT	10uF	20%	50V
C53	1-126-964-11	ELECT	10uF	20%	50V
C54	1-126-157-11	ELECT	10uF	20%	16V
C55	1-126-157-11	ELECT	10uF	20%	16V
C56	1-126-157-11	ELECT	10uF	20%	16V
C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C59	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V (AEP,UK,IT,G)
C59	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EXCEPT AEP,UK,IT,G)
C60	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V (AEP,UK,IT,G)
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EXCEPT AEP,UK,IT,G)
C61	1-126-301-11	ELECT	1uF	20%	50V
C62	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C63	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C64	1-126-967-11	ELECT	47uF	20%	16V
C65	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C66	1-126-162-11	ELECT	3.3uF	20%	50V
C67	1-126-933-11	ELECT	100uF	20%	10V
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V
C69	1-126-964-11	ELECT	10uF	20%	50V (CIS)

TCB (AEP,UK,G,IT,EE,CIS,E3, EA,MY,SP,TW,HK,JE,IA)

Ref. No.	Part No.	Description	Remark
C70	1-126-964-11	ELECT 10uF	20% 50V (CIS)
C71	1-162-306-11	CERAMIC 0.01uF	30% 16V
C72	1-126-967-11	ELECT 47uF	20% 16V
C120	1-163-105-00	CERAMIC CHIP 33PF	5% 50V (AEP,UK,IT,G)
		< FILTER >	
CF1	1-567-389-11	FILTER, CERAMIC (EXCEPT AEP,UK,G,IT)	
CF1	1-579-374-71	FILTER, CERAMIC (AEP,UK,G,IT)	
CF2	1-760-393-11	FILTER, CERAMIC (AEP,UK,G,IT)	
CF3	1-567-389-11	FILTER, CERAMIC (EXCEPT AEP,UK,G,IT)	
CF3	1-760-393-11	FILTER, CERAMIC (AEP,UK,G,IT)	
		< CONNECTOR >	
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P	
* CN2	1-568-832-11	SOCKET, CONNECTOR 13P (CIS)	
		< TRIMMER >	
CV1	1-141-227-00	TRIMMER (EXCEPT AEP,UK,G,IT,EE)	
CV2	1-141-227-00	TRIMMER (EXCEPT AEP,UK,G,IT,EE)	
		< DIODE >	
D1	8-719-976-30	DIODE KV1560N (EXCEPT AEP,UK,G,IT,EE)	
D21	8-719-976-99	DIODE UDZ-TE-17-5.1B	
D41	8-719-016-74	DIODE 1SS352-TPH3	
D42	8-719-987-63	DIODE 1N4148M-TP (CIS)	
D43	8-719-987-63	DIODE 1N4148M-TP (CIS)	
		< FRONT END >	
FE1	1-233-532-11	FRONT END (E3,EA,MY,SP,HK,JE,IA)	
FE1	1-233-542-11	FRONT END (4 GAND) (AEP,UK,IT,G)	
FE1	1-693-335-11	FRONT END (3 GAND) (EE,CIS)	
FE2	1-233-514-11	ENCAPSULATED COMPONENT (AEP,UK,EE)	
FE2	1-239-260-11	ENCAPSULATED COMPONENT (G,IT)	
FE2	1-239-262-11	ENCAPSULATED COMPONENT (EXCEPT AEP,UK,G,IT,EE)	
		< IC >	
IC21	8-759-288-54	IC LC72130	
IC41	8-759-176-03	IC LA1835	
		< IFT >	
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
		< JUMPER RESISTOR >	
JR1	1-216-295-11	METAL CHIP 0	5% 1/10W (G,IT)
JR2	1-216-295-11	METAL CHIP 0	5% 1/10W (AEP,UK,EE)
JR3	1-216-295-11	METAL CHIP 0	5% 1/10W (G,IT)

Ref. No.	Part No.	Description	Remark
JR6	1-216-295-11	METAL CHIP 0	5% 1/10W (AEP,UK,IT,G)
JR7	1-216-295-11	METAL CHIP 0	5% 1/10W (G,IT)
JR8	1-216-295-11	METAL CHIP 0	5% 1/10W (AEP,UK,EE)
JR9	1-216-295-11	METAL CHIP 0	5% 1/10W (AEP,UK,EE)
JR45	1-216-295-11	METAL CHIP 0	5% 1/10W
JR46	1-216-296-11	METAL CHIP 0	5% 1/8W
JR47	1-216-295-11	METAL CHIP 0	5% 1/10W
JR48	1-216-295-11	METAL CHIP 0	5% 1/10W
JR49	1-216-296-11	METAL CHIP 0	5% 1/8W
JR50	1-216-295-11	METAL CHIP 0	5% 1/10W (EXCEPT AEP,UK,G,IT,EE)
JR51	1-216-295-11	METAL CHIP 0	5% 1/10W (EXCEPT G,IT)
JR52	1-216-295-11	METAL CHIP 0	5% 1/10W
JR53	1-216-296-11	METAL CHIP 0	5% 1/8W (EXCEPT G,IT)
JR54	1-216-295-11	METAL CHIP 0	5% 1/10W
JW4	1-249-413-11	CARBON 470	5% 1/4W (AEP,UK,IT,G)
JW5	1-249-413-11	CARBON 470	5% 1/4W (AEP,UK,IT,G)
		< COIL >	
L1	1-410-521-11	MICRO INDUCTOR 100uH (EXCEPT AEP,UK,G,IT,EE)	
L2	1-414-142-11	MICRO INDUCTOR 1uH (AEP,UK,IT,G)	
L3	1-410-521-11	MICRO INDUCTOR 100uH	
L4	1-410-515-11	INDUCTOR 33uH (AEP,UK,G,IT)	
L41	1-407-500-00	MICRO INDUCTOR 4.7mH (AEP,UK,EE)	
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH (EXCEPT AEP,UK,EE)	
		< FILTER >	
LPF41	1-239-845-11	FILTER, LOW PASS	
LPF42	1-239-845-11	FILTER, LOW PASS	
		< TRANSISTOR >	
Q1	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
Q2	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
Q3	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
Q4	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
Q5	8-729-424-08	TRANSISTOR MUN2111T1	
Q8	8-729-033-67	TRANSISTOR 2SK211-Y-TE85L (EXCEPT AEP,UK,G,IT,EE)	
Q9	8-729-216-22	TRANSISTOR 2SA812-M5M6 (EXCEPT G,IT)	
Q10	8-729-216-22	TRANSISTOR 2SA812-M5M6 (EXCEPT AEP,UK,G,IT,EE)	
Q11	8-729-421-22	TRANSISTOR MUN2211T1 (AEP,UK,EE)	
Q12	8-729-421-22	TRANSISTOR MUN2211T1 (EXCEPT G,IT)	
Q13	8-729-421-22	TRANSISTOR MUN2211T1 (EXCEPT G,IT)	
Q14	8-729-421-22	TRANSISTOR MUN2211T1 (EXCEPT G,IT)	

Ref. No.	Part No.	Description				Remark
		< RESISTOR >				
R1	1-249-401-11	CARBON	47	5%	1/4W	
R2	1-216-037-00	METAL CHIP	330	5%	1/10W	
R3	1-216-037-00	METAL CHIP	330	5%	1/10W	
R5	1-216-037-00	METAL CHIP	330	5%	1/10W	
R6	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R7	1-216-037-00	METAL CHIP	330	5%	1/10W	
R8	1-216-037-00	METAL CHIP	330	5%	1/10W	
R9	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R10	1-216-037-00	METAL CHIP	330	5%	1/10W	
R11	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R12	1-216-037-00	METAL CHIP	330	5%	1/10W	
R13	1-216-037-00	METAL CHIP	330	5%	1/10W	
R14	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W	(AEP,UK,EE)
R18	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	(EXCEPT AEP,UK,G,IT,EE)
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W	(EXCEPT G,IT)
R20	1-216-121-91	METAL CHIP	IM	5%	1/10W	(EXCEPT AEP,UK,G,IT,EE)
R21	1-216-049-11	METAL CHIP	1.0K	5%	1/10W	
R22	1-216-049-11	METAL CHIP	1.0K	5%	1/10W	
R23	1-216-049-11	METAL CHIP	1.0K	5%	1/10W	
R24	1-216-025-11	METAL CHIP	100	5%	1/10W	
R25	1-249-417-11	CARBON	1K	5%	1/4W	
R26	1-249-437-11	CARBON	47K	5%	1/4W	
R27	1-249-429-11	CARBON	10K	5%	1/4W	
R28	1-249-417-11	CARBON	1K	5%	1/4W	
R29	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R30	1-216-186-00	METAL CHIP	330	5%	1/8W	
R31	1-216-025-11	METAL CHIP	100	5%	1/10W	
R32	1-249-425-11	CARBON	4.7K	5%	1/4W	
R33	1-249-425-11	CARBON	4.7K	5%	1/4W	
R34	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R35	1-216-214-00	METAL CHIP	4.7K	5%	1/8W	
R36	1-216-025-11	METAL CHIP	100	5%	1/10W	
R37	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R38	1-216-089-11	METAL CHIP	47K	5%	1/10W	
R39	1-249-429-11	CARBON	10K	5%	1/4W	
R42	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R43	1-216-042-00	METAL CHIP	510	5%	1/10W	
R44	1-216-021-00	METAL CHIP	68	5%	1/10W	
R45	1-249-423-11	CARBON	3.3K	5%	1/4W	
R46	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R47	1-216-097-11	METAL CHIP	100K	5%	1/10W	
R48	1-249-417-11	CARBON	1K	5%	1/4W	(AEP,UK,G,IT,EE,CIS)
R48	1-249-423-11	CARBON	3.3K	5%	1/4W	(EXCEPT AEP,UK,G,IT,EE,CIS)
R49	1-216-061-11	METAL CHIP	3.3K	5%	1/10W	
R50	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R51	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R53	1-249-429-11	CARBON	10K	5%	1/4W	
R54	1-216-162-00	METAL CHIP	33	5%	1/8W	(EXCEPT G,IT)
R55	1-216-162-00	METAL CHIP	33	5%	1/8W	
R56	1-249-393-11	CARBON	10	5%	1/4W	
R91	1-216-295-11	METAL CHIP	0	5%	1/10W	(AEP,UK,EE)
R91	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	(EXCEPT AEP,UK,G,IT,EE)
R92	1-216-073-00	METAL CHIP	10K	5%	1/10W	(EXCEPT G,IT)
R93	1-216-073-00	METAL CHIP	10K	5%	1/10W	(EXCEPT AEP,UK,G,IT,EE)
R94	1-216-073-00	METAL CHIP	10K	5%	1/10W	(EXCEPT G,IT)
		< VARIABLE RESISTOR >				
RV41	1-238-601-11	RES, ADJ, CARBON 22K (AM TUNING LEVEL)				
RV42	1-238-600-11	RES, ADJ, CARBON 10K (FM TUNING LEVEL)				
		< COIL >				
T1	1-409-505-11	COIL (ANT.SW3) (EXCEPT AEP,UK,G,IT,EE)				
T2	1-402-960-11	COIL (OSC.SW3) (EXCEPT AEP,UK,G,IT,EE)				
		< TERMINAL >				
TM1	1-537-238-11	TERMINAL BOARD (ANT) (ANTENNA)				(E3,EA,MY,SP,TW,HK,JE,IA)
TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)				(AEP,UK,G,IT,EE,CIS)
		< VIBRATOR >				
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)				
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)				
X42	1-527-981-00	FILTER, CERAMIC (450KHz)				
X43	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)				

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*	A-4303-522-A	TCB BOARD, COMPLETE (US,CND)				
*	A-4303-524-A	TCB BOARD, COMPLETE (E2,AUS,AR,MX,TH)				
		******************				
		< CAPACITOR >				
C1	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C2	1-126-967-11	ELECT	47uF	20%	16V	
C3	1-164-159-21	CERAMIC	0.1uF		50V	
C5	1-162-306-11	CERAMIC	10000PF	30%	16V	
C6	1-162-306-11	CERAMIC	10000PF	30%	16V	
C7	1-101-004-00	CERAMIC	0.01uF		50V	
C8	1-162-306-11	CERAMIC	10000PF	30%	16V	
C9	1-162-306-11	CERAMIC	10000PF	30%	16V	
C11	1-164-159-21	CERAMIC	0.1uF		50V	
C12	1-162-198-31	CERAMIC	8.2PF	10%	50V	
C14	1-162-306-11	CERAMIC	10000PF	30%	16V	

TCB (US,CND,E2,AUS, AR,MX,TH)

Ref. No.	Part No.	Description			Remark
C21	1-102-959-00	CERAMIC	22PF	5%	50V
C21	1-102-960-00	CERAMIC	24PF		50V
C22	1-164-159-21	CERAMIC	0.1uF		50V
C23	1-162-306-11	CERAMIC	10000PF	30%	16V
C24	1-126-967-11	ELECT	47uF	20%	16V
C25	1-162-306-11	CERAMIC	10000PF	30%	16V
C26	1-126-964-11	ELECT	10uF	20%	50V
C27	1-164-159-21	CERAMIC	0.1uF		50V
C28	1-124-925-11	ELECT	2.2uF	20%	100V
C29	1-102-518-11	CERAMIC	33PF	5%	50V
C30	1-162-294-31	CERAMIC	0.001uF	10%	50V
C31	1-162-306-11	CERAMIC	10000PF	30%	16V
C41	1-126-933-11	ELECT	100uF	20%	10V
C42	1-162-306-11	CERAMIC	10000PF	30%	16V
C43	1-126-962-11	ELECT	3.3uF	20%	50V
C44	1-162-306-11	CERAMIC	10000PF	30%	16V
C45	1-124-589-11	ELECT	47uF	20%	16V
C46	1-162-600-11	CERAMIC	4700PF	30%	16V
C47	1-162-294-31	CERAMIC	0.001uF	10%	50V
C48	1-126-160-11	ELECT	1uF	20%	50V
C49	1-136-159-00	METALIZED FILM	0.033uF	5%	50V (EXCEPT US,CND)
C49	1-136-160-00	METALIZED FILM	0.039uF	5%	50V (US,CND)
C50	1-136-159-00	METALIZED FILM	0.033uF	5%	50V (EXCEPT US,CND)
C50	1-136-160-00	METALIZED FILM	0.039uF	5%	50V (US,CND)
C51	1-162-600-11	CERAMIC	4700PF	30%	16V
C52	1-162-600-11	CERAMIC	4700PF	30%	16V
C53	1-126-964-11	ELECT	10uF	20%	50V
C54	1-126-157-11	ELECT	10uF	20%	16V
C55	1-126-964-11	ELECT	10uF	20%	50V
C56	1-126-964-11	ELECT	10uF	20%	50V
C57	1-164-159-21	CERAMIC	0.1uF		50V
C58	1-162-306-11	CERAMIC	10000PF	30%	16V
C59	1-164-159-21	CERAMIC	0.1uF		50V
C61	1-164-159-21	CERAMIC	0.1uF		50V
C62	1-126-967-11	ELECT	47uF	20%	16V
C63	1-164-159-21	CERAMIC	0.1uF		50V
C64	1-124-902-00	ELECT	0.47uF	20%	50V
C65	1-124-903-11	ELECT	1.0uF	20%	50V
C66	1-124-903-11	ELECT	1.0uF	20%	50V
C67	1-126-964-11	ELECT	10uF	20%	50V
C68	1-162-306-11	CERAMIC	10000PF	30%	16V
C69	1-162-306-11	CERAMIC	10000PF	30%	16V
C70	1-162-306-11	CERAMIC	10000PF	30%	16V
C71	1-162-306-11	CERAMIC	10000PF	30%	16V
C73	1-162-306-11	CERAMIC	10000PF	30%	16V
C74	1-126-964-11	ELECT	10uF	20%	50V
		< FILTER >			
CF1	1-567-389-11	FILTER, CERAMIC			
CF2	1-567-389-11	FILTER, CERAMIC			
		< CONNECTOR >			
* CN1	1-568-832-11	SOCKET, CONNECTOR 13P			
		< DIODE >			
D1	8-719-933-33	DIODE	UZL-6L1-TA		
D2	8-719-987-63	DIODE	1N4148M-TA		
		< FRONT END >			
FE1	1-233-533-11	ENCAPSULATED COMPONENT			
FE2	1-239-260-11	ENCAPSULATED COMPONENT			
		< IC >			
IC1	8-759-288-54	IC	LC72130		
IC2	8-759-176-03	IC	LA1835		
		< IFT >			
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)			
		< COIL >			
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE)			
		< FILTER >			
LPF41	1-239-845-11	FILTER, LOW PASS			
LPF42	1-239-845-11	FILTER, LOW PASS			
		< TRANSISTOR >			
Q1	8-729-230-99	TRANSISTOR	2SC2669OY-TPE4		
Q2	8-729-230-99	TRANSISTOR	2SC2669OY-TPE4		
Q3	8-729-230-99	TRANSISTOR	2SC2669OY-TPE4		
Q4	8-729-230-99	TRANSISTOR	2SC2669OY-TPE4		
Q5	8-729-422-57	TRANSISTOR	BN1A4M-TP		
		< RESISTOR >			
R1	1-249-401-11	CARBON	47	5%	1/4W
R2	1-249-411-11	CARBON	330	5%	1/4W
R3	1-249-411-11	CARBON	330	5%	1/4W
R5	1-249-411-11	CARBON	330	5%	1/4W
R6	1-247-863-91	CARBON	22K	5%	1/4W
R7	1-249-411-11	CARBON	330	5%	1/4W
R8	1-249-411-11	CARBON	330	5%	1/4W
R9	1-247-863-91	CARBON	22K	5%	1/4W
R10	1-249-411-11	CARBON	330	5%	1/4W
R11	1-247-863-91	CARBON	22K	5%	1/4W
R12	1-249-411-11	CARBON	330	5%	1/4W
R13	1-249-411-11	CARBON	330	5%	1/4W
R14	1-247-863-91	CARBON	22K	5%	1/4W
R15	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R16	1-249-437-11	CARBON	47K	5%	1/4W
R19	1-249-399-11	CARBON	33	5%	1/4W
R21	1-247-807-31	CARBON	100	5%	1/4W
R22	1-249-425-11	CARBON	4.7K	5%	1/4W
R23	1-249-425-11	CARBON	4.7K	5%	1/4W
R24	1-249-425-11	CARBON	4.7K	5%	1/4W
R25	1-247-807-31	CARBON	100	5%	1/4W
R26	1-249-411-11	CARBON	330	5%	1/4W
R27	1-249-425-11	CARBON	4.7K	5%	1/4W
R28	1-249-423-11	CARBON	3.3K	5%	1/4W
R29	1-249-417-11	CARBON	1K	5%	1/4W
R30	1-249-417-11	CARBON	1K	5%	1/4W
R31	1-249-417-11	CARBON	1K	5%	1/4W
R32	1-249-417-11	CARBON	1K	5%	1/4W
R33	1-247-807-31	CARBON	100	5%	1/4W
R34	1-249-429-11	CARBON	10K	5%	1/4W
R35	1-249-429-11	CARBON	10K	5%	1/4W
R36	1-249-437-11	CARBON	47K	5%	1/4W
R37	1-249-417-11	CARBON	1K	5%	1/4W
R41	1-249-429-11	CARBON	10K	5%	1/4W
R43	1-249-421-11	CARBON	2.2K	5%	1/4W
R44	1-249-421-11	CARBON	2.2K	5%	1/4W
R46	1-249-442-11	CARBON	510	5%	1/4W
R47	1-249-403-11	CARBON	68	5%	1/4W
R48	1-249-423-11	CARBON	3.3K	5%	1/4W
R49	1-249-393-11	CARBON	10	5%	1/4W
R50	1-249-429-11	CARBON	10K	5%	1/4W
R51	1-249-441-11	CARBON	100K	5%	1/4W
R52	1-249-429-11	CARBON	10K	5%	1/4W
R53	1-249-425-11	CARBON	4.7K	5%	1/4WF
R54	1-249-425-11	CARBON	4.7K	5%	1/4WF

< VARIABLE RESISTOR >

RV41	1-238-600-11	RES, ADJ, CARBON 10K (FM TUNING LEVEL)
RV42	1-238-601-11	RES, ADJ, CARBON 22K (AM TUNING LEVEL)

< TERMINAL >

TM1	1-537-238-21	TERMINAL BOARD (ANTENNA)

< VIBRATOR >

X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)
X41	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)
X42	1-760-220-11	FILTER, CERAMIC (10.7MHz)
X43	1-527-981-00	FILTER, CERAMIC (450KHz)

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* A-4389-030-A TC-SW BOARD, COMPLETE

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< DIODE >

D523	8-719-032-87	LED	SEL5420E-TP15 (◁ (DECK B))
D524	8-719-032-87	LED	SEL5420E-TP15 (▷ (BECK B))
D525	8-719-057-09	LED	LNJ801LPDJA (● REC)
D526	8-719-058-17	LED	LNJ401NPYJA (❚❚ PAUSE)
D527	8-719-032-87	LED	SEL5420E-TP15 (◁ (DECK A))
D528	8-719-032-87	LED	SEL5420E-TP15 (▷ (DECK A))

< RESISTOR >

R553	1-249-409-11	CARBON	220	5%	1/4W
R554	1-249-411-11	CARBON	330	5%	1/4W
R555	1-249-413-11	CARBON	470	5%	1/4W
R556	1-249-415-11	CARBON	680	5%	1/4W
R557	1-249-417-11	CARBON	1K	5%	1/4W
R558	1-249-419-11	CARBON	1.5K	5%	1/4W
R559	1-249-421-11	CARBON	2.2K	5%	1/4W
R560	1-249-423-11	CARBON	3.3K	5%	1/4W
R561	1-249-427-11	CARBON	6.8K	5%	1/4W
R562	1-249-431-11	CARBON	15K	5%	1/4W
R568	1-249-413-11	CARBON	470	5%	1/4W
R569	1-249-415-11	CARBON	680	5%	1/4W
R570	1-249-417-11	CARBON	1K	5%	1/4W
R571	1-249-419-11	CARBON	1.5K	5%	1/4W
R572	1-249-421-11	CARBON	2.2K	5%	1/4W
R573	1-249-423-11	CARBON	3.3K	5%	1/4W
R574	1-249-427-11	CARBON	6.8K	5%	1/4W
R610	1-247-807-31	CARBON	100	5%	1/4W
R611	1-247-807-31	CARBON	100	5%	1/4W
R612	1-249-407-11	CARBON	150	5%	1/4W
R613	1-249-407-11	CARBON	150	5%	1/4W
R614	1-247-807-31	CARBON	100	5%	1/4W
R615	1-247-807-31	CARBON	100	5%	1/4W

< SWITCH >

S536	1-554-303-21	SWITCH, TACTILE (▷ (DECK B))
S537	1-554-303-21	SWITCH, TACTILE (◁ (DECK B))
S538	1-554-303-21	SWITCH, TACTILE (▶▶)
S539	1-554-303-21	SWITCH, TACTILE (■)
S540	1-554-303-21	SWITCH, TACTILE (◀◀)
S541	1-554-303-21	SWITCH, TACTILE (❚❚ PAUSE)
S542	1-554-303-21	SWITCH, TACTILE (● REC)
S543	1-554-303-21	SWITCH, TACTILE (KARAOKE PON/MPX)
S544	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)
S545	1-554-303-21	SWITCH, TACTILE (HIGH SPEED DUBBING)
S554	1-554-303-21	SWITCH, TACTILE (DIRECTION)
S555	1-554-303-21	SWITCH, TACTILE (DOLBY NR)
S556	1-554-303-21	SWITCH, TACTILE (▶▶)
S557	1-554-303-21	SWITCH, TACTILE (■)
S558	1-554-303-21	SWITCH, TACTILE (◀◀)
S559	1-554-303-21	SWITCH, TACTILE (▷ (DECK A))
S560	1-554-303-21	SWITCH, TACTILE (◁ (DECK A))

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TRANS

Ref. No.	Part No.	Description	Remark
*	1-659-116-11	TRANS BOARD ************	
		< HOLDER, FUSE >	
	1-533-217-31	HOLDER, FUSE	
		< CONNECTOR >	
CN1601	1-564-321-00	PIN, CONNECTOR 2P	
CN1602	1-564-524-11	PLUG, CONNECTOR 9P	
		< FUSE >	
⚠ F1601	1-532-299-00	FUSE (T5AL,250V) (AEP,UK,G,IT,EE,CIS)	
⚠ F1602	1-532-299-00	FUSE (T5AL,250V) (AEP,UK,G,IT,EE,CIS)	
⚠ F1603	1-532-350-00	FUSE (T4AL,250V) (E,EA,SP,JE,HK,IA,MX)	
⚠ F1603	1-533-420-00	FUSE,GLASS TUBE (5A 125V) (US,CND)	
⚠ F1604	1-532-203-00	FUSE (T2AL,250V) (E,EA,JE,HK,AR,MY,AUS,TW)	
		< RESISTOR >	
⚠ R1600	1-202-725-00	SOLID 3.3M	10% 1/2W (US,CND)
⚠ R1602	1-219-119-81	FUSIBLE 0.1	5% 1/4W F
⚠ R1603	1-219-139-11	FUSIBLE 0.68	5% 1/4W F
⚠ R1604	1-219-119-81	FUSIBLE 0.1	5% 1/4W F
		< SWITCH >	
⚠ VS1601	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR) (AR,EA,SP,TW,JE,HK,E,IA)	
		< TRANSFORMER >	
⚠ T1601	1-429-294-11	TRANSFORMER, POWER (US,CND)	
⚠ T1601	1-429-296-11	TRANSFORMER, POWER (AEP,G,IT,UK,CIS,EE)	
⚠ T1601	1-429-298-11	TRANSFORMER, POWER (AR,AUS,EA,TH,SP,TW,MY,MX,JE,HK,E)	
⚠ T1601	1-429-299-11	TRANSFORMER, POWER (IA)	

****

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS ****************	
* 5	1-533-217-31	HOLDER, FUSE	
8	1-751-086-11	WIRE (FLAT TYPE) (13 CORE) (US,CND,AR,AUS,E2,MX,TH,EA4)	
8	1-773-012-11	WIRE (FLAT TYPE) (15 CORE) (AEP,IT,G, UK,CIS,EE,E3,JE,MX,MY,EA3,TW,SP,IA)	
⚠ 12	1-575-651-11	CORD, POWER (AR,AEP,G,IT,EA,CIS,SP,MY,HK,EE,TW)	
⚠ 12	1-575-653-11	CORD, POWER (MX,JE,E,IA)	
⚠ 12	1-690-608-11	CORD, POWER (AUS)	
⚠ 12	1-690-609-21	CORD, POWER (US,CND)	
⚠ 12	1-751-520-21	CORD, POWER (UK)	
⚠ 12	1-751-326-31	CORD, POWER (TH)	
14	1-698-659-11	FAN, DC (EXCEPT AEP,G,IT,UK,CIS,EE)	
17	1-751-688-11	WIRE (FLAT TYPE) (13 CORE) (CIS)	
⚠ 18	1-569-007-11	ADAPTER, CONVERSION 2P (E,JE,IA)	
⚠ 18	1-569-008-11	ADAPTER, CONVERSION 2P (EA3,SP,TW)	
⚠ 18	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
68	1-773-157-11	WIRE (FLAT TYPE) (21 CORE)	
69	1-765-325-11	WIRE (FLAT TYPE) (11 CORE) (EXCEPT TH,EA4)	
69	1-769-945-11	WIRE (FLAT TYPE) (11 CORE) (TH,EA4)	
77	1-769-977-11	WIRE (FLAT TYPE) (13 CORE)	
257	1-452-538--11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
266	1-776-442-11	WIRE (FLAT TYPE) (19 CORE) (EXCEPT TH)	
⚠ 301	8-848-367-11	DEVICE, OPTICAL KSS-213BA/F-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
⚠ F1601	1-532-299-00	FUSE (T5AL,250V) (AEP,UK,G,IT,EE,CIS)	
⚠ F1602	1-532-299-00	FUSE (T5AL,250V) (AEP,UK,G,IT,EE,CIS)	
⚠ F1603	1-532-350-00	FUSE, (T4AL,250V) (E,EA,SP,JE,HK,IA,MX)	
⚠ F1603	1-533-420-11	FUSE, GLASS TUBE(5A 125V) (US,CND)	
⚠ F1604	1-532-203-00	FUSE, (T2AL,250V) (E,EA,JE,HK,AR,MY,AUS,TW)	
FL501	1-517-483-11	INDICATOR TUBE, FLUORESCENT	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY, DC (TRIGGER)	
M101	X-4917-523-4	BASE OUTSERT ASSY(SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY(SLED)	
M701	A-4660-586-A	MOTOR ASSY(TURN)	
M801	A-4660-586-A	MOTOR ASSY(SLIDE)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT SW)	
S851	1-473-335-11	ENCODER, ROTARY	
⚠ T1601	1-429-294-11	TRANSFORMER, POWER	
⚠ T1601	1-429-295-11	TRANSFORMER, POWER (US,CND:made in Indonesia)	
⚠ T1601	1-429-296-11	TRANSFORMER, POWER (AEP,IT,G,UK,EE,CIS:made in Malaysia)	
⚠ T1601	1-429-297-11	TRANSFORMER, POWER (AEP,IT,G,UK,EE,CIS:made in Indonesia)	
⚠ T1601	1-429-298-11	TRANSFORMER, POWER (AR,AUS,EA3,E,HK,JE, MX,MY,SP,TW:made in Malaysia/TH,EA4 :made in Thailand)	
⚠ T1601	1-429-299-11	TRANSFORMER, POWER (AR,AUS,E,HK,MX,SP,IA:made in Indonesia)	

****

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS ********************************	
	4-980-428-01	CUSHION (FRONT)	
	4-980-429-01	CUSHION (REAR)	

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		*********************	
		HARDWARE LIST	
		*********************	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#4	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S	
#5	7-621-775-00	SCREW +B 2.6X3	
#6	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
#7	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#8	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#9	7-621-775-10	SCREW +B 2.6X4	
#10	7-623-921-01	RING, RETAINING, CAPSTAN	
#11	7-621-255-15	SCREW +P 2X3	
#12	7-685-871-01	SCREW +BVTT 3X6 (S)	

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SS-H991

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

This set is the speaker system in MHC-881, MHC-991AV, MHC-D7, MHC-G88 and MHC-G99AV.

SPECIFICATIONS

Speaker system	3-way system, magnetically shielded type
Speaker units	Woofer : 17cm dia., cone type Tweeter : 5cm dia., cone type Super tweeter : 2cm dia., dome type
Enclosure	Bass reflex
Nominal impedance	8 ohms
Dimensions	Approx. 220×325×275 mm (w/h/d) (8 3/4×12 7/8×10 7/8 in.)
Mass	Approx. 5kg (11lb) net per speaker

Design and specification subject to change without notice.

SPEAKER SYSTEM

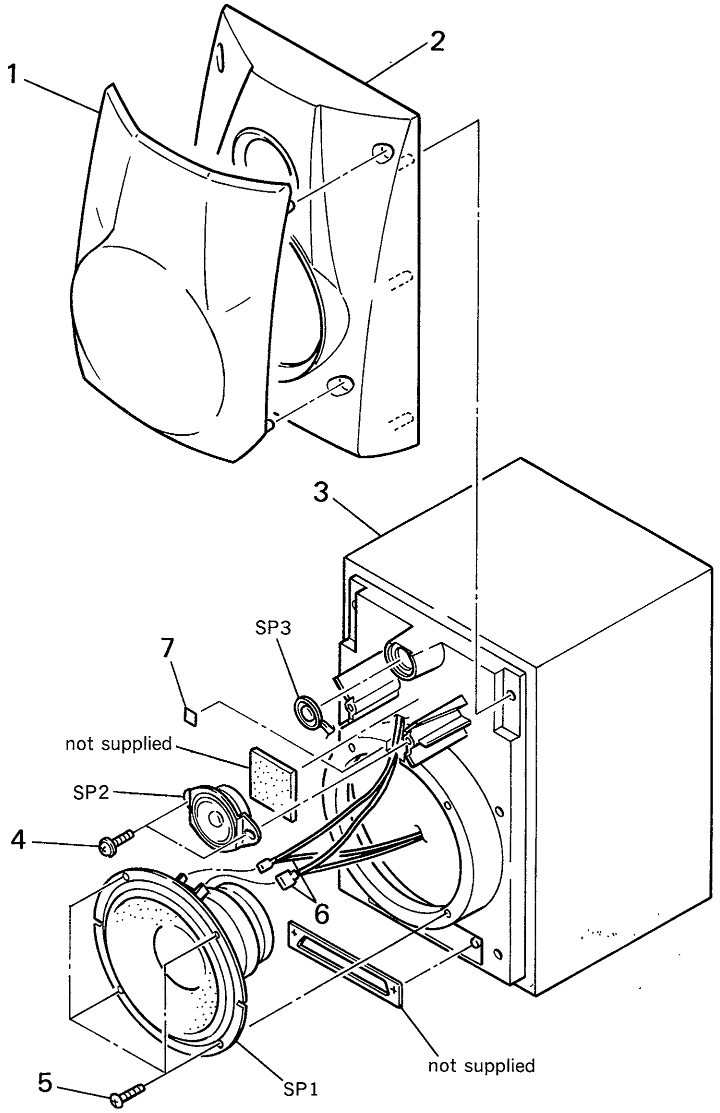
SONY®

EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example :

  KNOB, BALANCE (WHITE)... (RED)
  ↑ Parts Color ↑ Cabinet's Color



Ref. No.	Part No.	Description	Remark
1	X-4946-748-1	FRAME ASSY, GRILLE	
2	X-4946-745-1	PANEL ASSY, FRONT	
* 3	A-4361-900-A	CABINET ASSY, SPEAKER (including SP TERMINAL BOARD)	
4	3-703-564-01	SCREW, TAPPING	
5	4-874-614-11	SCREW, (4) (3.5X14), TAPPING	
6	1-776-511-11	CORD	
7	9-911-840-XX	PACKING	
SP1	1-505-228-11	SPEAKER (16CM)	
SP2	1-505-309-11	SPEAKER (5CM)	
SP3	1-504-826-11	SPEAKER (2CM)	

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ACCESSORIES & PACKING MATERIALS

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Ref. No.	Part No.	Description	Remark
	1-769-317-11	CORD, SPEAKER	
*	4-981-327-01	CUSHION	

English
96A0495-1
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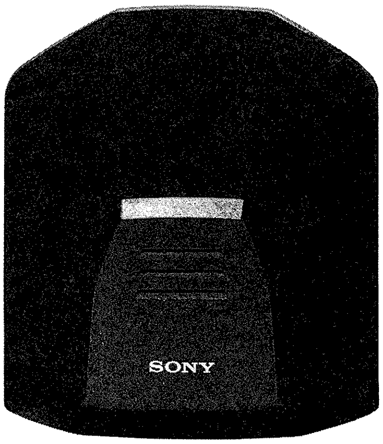
Quality Engineering Dept.

SS-SR991

SERVICE MANUAL

US Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model



SPECIFICATIONS

Speaker system	Full range speaker system Magnetically shielded type
Speaker unit	10cm, cone type
Enclosure type	Bass reflex
Rated impedance	16 ohms
Dimensions	Approx. 200×90×235 mm (7 7/8×3 17/32×9 1/4 in.) (w/h/d) incl. front grille
Mass	Approx. 1 kg (35.3 oz) per speaker

Design and specifications are subject to change without notice.

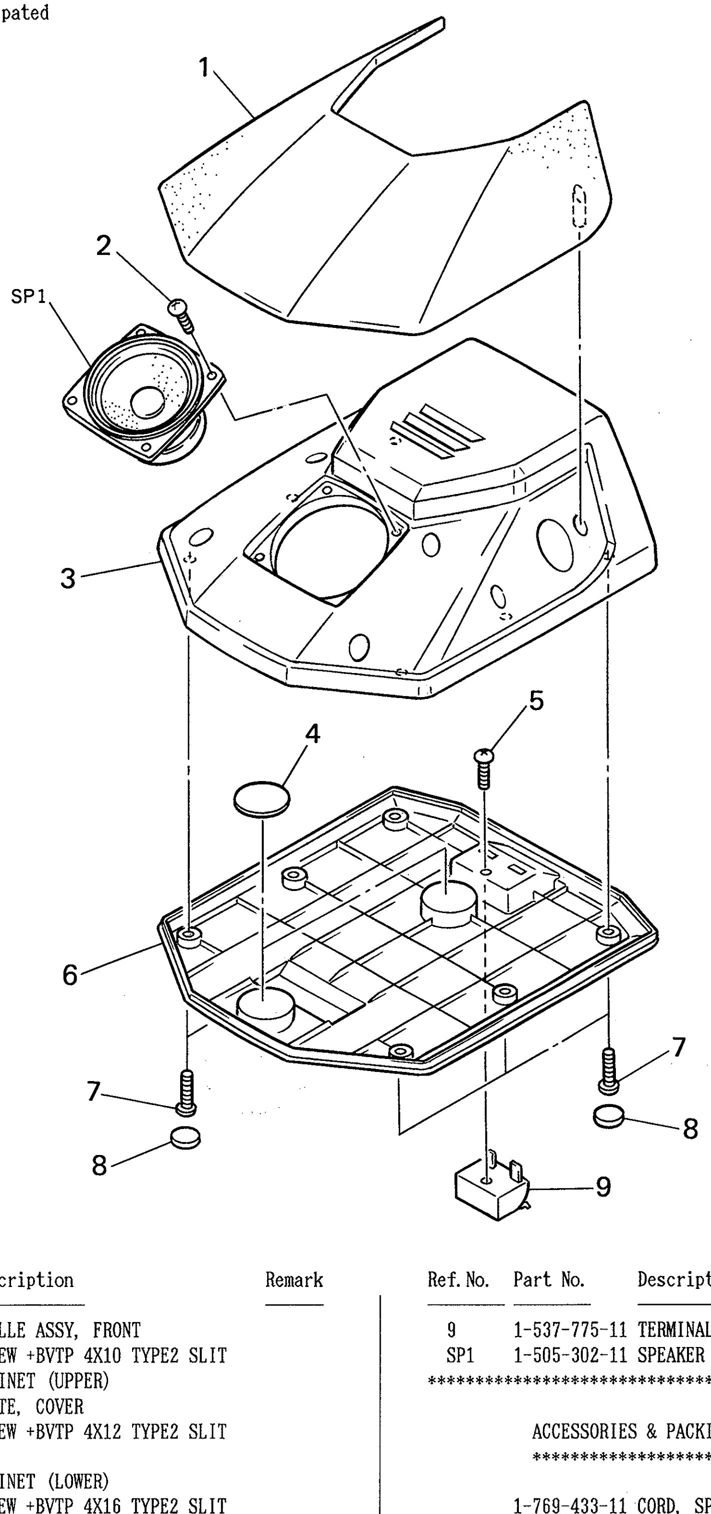
SPEAKER SYSTEM

SONY®

EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



Ref. No.	Part No.	Description	Remark
1	X-4947-168-1	GRILLE ASSY, FRONT	
2	7-685-660-29	SCREW +BVTP 4X10 TYPE2 SLIT	
* 3	4-981-588-01	CABINET (UPPER)	
* 4	4-982-338-01	PLATE, COVER	
5	7-685-661-29	SCREW +BVTP 4X12 TYPE2 SLIT	
* 6	4-981-589-01	CABINET (LOWER)	
7	7-685-663-79	SCREW +BVTP 4X16 TYPE2 SLIT	
8	4-982-339-01	FOOT	
9	1-537-775-11	TERMINAL BOARD	
SP1	1-505-302-11	SPEAKER (8CM)	

****

ACCESSORIES & PACKING MATERIALS

****

Ref. No.	Part No.	Description	Remark
	1-769-433-11	CORD, SPEAKER	
*	4-980-957-01	CUSHION (UPPER)	

English
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Quality Engineering Dept.